DEVELOPMENTS IN BRITISH ORGAN DESIGN 1945-1970: A PLAYER'S PERSPECTIVE

by

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ABSTRACT

This research forms part of a performance practice degree and focuses on the performance of British organ music written in the period 1945 to 1970. This period was a turbulent time for all those with an interest in the pipe organ, whether they were performers, consultants, organ builders or listeners. The considerable change in the approach to the design, construction and voicing of pipe organs, influenced by the Organ Reform Movement (Orgelbewegung), resulted in strong feelings both for and against the neo-classic organ, and the consequent tensions tested the typical British reserve of many of those directly involved. The challenge for the performer of today is to understand the strengths and weaknesses of British organs in the period and to connect these instruments with the music written for them. The original contribution this research provides is to focus firstly on the organ's mechanisms, including key actions, registration aids and console design and, secondly, on the tonal designs of the organs of the period. Case studies of music are presented, featuring three composers for the organ in this period, Howells, Leighton and Whitlock, the findings of which inform the associated recital which features contrasting pieces from the period 1945 to 1970.

Dedicated with love to my wife Carlyn and son Oliver

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Abbreviations

ARCO	Associate of the Royal College of Organists
BIOS	British Institute of Organ Studies
FRCO	Fellow of the Royal College of Organists
GDB	Grant, Degens and Bradbeer (organ builders)
H&H	Harrison and Harrison (organ builders)
HNB	Hill, Norman & Beard (organ builders)
LCM	The London College of Music
NPOR	National Pipe Organ Register
ORM	Organ Reform Movement
RCM	The Royal College of Music
RCO	The Royal College of Organists
RFH	The Royal Festival Hall, London

A note on the shorthand used for organ stop lists in the footnotes

In the footnotes the outlines of stop lists of a number of organs are given. The shorthand provides an overview of the stops but saves space by not giving precise details of the different tone colours.

A typical outline:

Gt: 8 8 8 4 4 III (tierce mixture) 8
Sw: 8 8 8 8 4 2 IV 16 8
Ch: 8 8 4 4 II (12,17) 8
Pedal: 32 16 16 8 16

is short for:

Great:
- three 8ft. flues (likely to be a mix of Diapasons and Flutes)
- two 4ft. flues (normally a Principal and a Flute)
- a three-rank Mixture (with any unusual or noteworthy combination noted – in this case there is a tierce rank in the stop's make-up)
- a reed stop at 8ft. pitch.

Swell:
- four 8ft. flues
- a 4ft. flue
- a 2ft. flue
- a four-rank Mixture
- two reed stops at 16ft. and 8ft. pitch.

Choir:
- two 8ft. flues
- two 4ft. flues
- a two-rank Mixture (containing ranks sounding respectively at the twelfth and seventeenth above the unison)
- a reed stop at 8ft. pitch.

Pedal:
- one 32ft. flue stop
- two 16ft. flues
- an 8ft. flue
- a reed stop at 16ft. pitch.

Glossary

Action	see *key action* and *stop action*
Capture systems	A system that allows players to adjust *thumb pistons* and *toe pistons* instantly whilst seated at the organ console.
Choir Organ	Normally the lowest manual on organs with three or more keyboards. The term 'choir' is probably derived from 'chaire' organ, which in old English organs was a division situated in a separate case behind the player's back.
Chorus	The basic ensemble in an organ, consisting of a group of similar toned stops of different pitch drawn together. A flue chorus might have Diapason stops of 8ft., 4ft., 2ft. and Mixture, whereas a reed chorus might have 16ft., 8ft. and 4ft. Trumpets.
Cipher	The term used for when a pipe keeps sounding despite the relevant key having been released. Due to the mechanical complexities of most organs this is not an uncommon occurrence.
Combination action	The mechanism used to operate *thumb pistons* and *toe pistons.*
Combination or composition pedal	A metal pedal located above the pedalboard which brings out pre-determined stop combinations.
Compound stops	Stops with more than one rank of pipes, e.g. *Mixtures*
Console	The part of an organ where the organist controls the instrument, consisting of keyboards, pedalboard and stops.
Coupler	A device which allows stops from one division to be operated from a different manual or the pedalboard e.g. when the *Swell to Great* coupler is drawn any note depressed on the Great will also cause the corresponding note on the Swell to sound.
Cymbelstern	A specialist stop consisting of a rotating star upon which small bells are mounted, producing a continuous gentle tinkling sound.
Division	A collective term for all of the stops played from one particular keyboard e.g. Swell division.
Drawstop	The control on the console for engaging or disengaging a rank of pipes. Drawstops are pulled out for ‘on’ and pushed in for ‘off’.
En chamade	A powerful reed stop mounted horizontally and outside the case, designed to project the tone for maximum effect.
Expression	See *Swell*
Extension system	A system in which all or some of the pipe ranks are used for more than one pitch and also may be made available for use on more than one manual and on the pedal. An extension organ is one where there is much manual extension.
Floating division	A division on the organ that has no designated manual, with controls allowing the player to assign the division to a manual of their choice.
Flue pipe	Pipes that have no moving parts, working on the same principle as flutes, recorders or whistles. Typical organ flue stops include Open Diapason, Stopped Flute and Salicional.
Fluework	The collective word for all of the *Flue* pipes in a *division.*

Full Swell	A unique combination of stops that is particularly associated with British organs and their repertoire. A traditional Full Swell has a complete chorus of powerful reeds (16ft., 8ft and 4ft.) along with a flue chorus including a bright Mixture.
Great Organ	The main manual division to be found on British organs. On a three-manual organ the Great organ is normally the middle keyboard.
Key action	The means of connecting the keys (both manuals and pedals) to the pallets of the soundboard.
Manuals	The keyboards operated by the hands, as opposed to the *pedalboard*.
Mechanical action	See *tracker action*
Mixture	A compound stop of several high pitched ranks at 8ve and 5th pitches (occasionally 3rds and, more rarely, others such as flat 19ths), designed to add clarity and definition in the bass register, and fullness and solidity in the treble register.
Mutation	A stop that sounds a pitch other than the unison or octave, e.g. a Tierce 1⅗ft. will sound the note E28 when the key C1 is played.
Nicking	Nicking is a technique in voicing an organ, whereby the organ builder modifies the sound of a pipe by cutting with a knife ('nicking') a series of small notches either side of the flue of a flue pipe.
Octave coupler	A device which when drawn causes any note on a manual to sound simultaneously both its own pitch and the octave above. In a similar way a *sub-octave coupler* will sound the octave below.
Pallet	The valve in the pipe chest that allows air into the pipes.
Pedal Organ	The division that is operated by the pedalboard.
Pedalboard	The keyboard operated by the feet, as opposed to the *manuals*.
Pistons	See *Thumb pistons* and *Toe pistons*
Pitches e.g. 8ft., 4ft.	All pipes have a pitch length in addition to a name and this refers to the length of the speaking pitch of the longest pipe in a particular rank, with 8ft. ranks being unison pitch. Therefore a stop of 4ft. pitch will sound an octave above unison. There are various ways of notating the stop lengths: 8 foot, 8ft, and 8'.
Rank	The collection of pipes of one timbre e.g. Open Diapason 8ft., Bourdon 16ft. etc.
Reed pipe	Pipes in which the sound is produced by brass tongues vibrating. Typical organ reed stops include Trumpet, Oboe and Posaune.
Registration	The art of selecting and combining stops for the performance of a piece of music.
Reversible pistons	These control single stops, often couplers, and when such a piston is first pushed it brings the designated stop into action, and when it is pushed again the stop is cancelled.
Scudamore organ	A modest organ designed in the nineteenth century for small country churches, with one manual, a few stops and a pedalboard coupled permanently to the manual but with no stops of its own.

Slide/slider	A perforated strip of wood in the windchest, operated by a stop that controls the admittance of wind to a rank of pipes.
Solo Organ	In a four-manual organ this is normally the top keyboard. The stops to be found on the Solo are frequently 'specialist' ranks such as imitative orchestral flues and reeds, along with at least one powerful reed stop such as a Tuba 8ft.
Soundboard	In a traditionally built organ each division has its own soundboard upon which all the pipes are placed. The soundboard contains the pallets and the sliders.
Specification	The stop list of an organ, along with other pertinent detail including pistons etc.
Stop	The device at the console which is used to operate the slider. (see *drawstop* and *stop key*)
Stop action	The mechanical means by which the *stop* at the console is linked to the slider on the soundboard.
Stop key	The function of the stop key is identical to that of the drawstop but is normally a simple tab that is moved down to bring on the stop.
String stop	A type of flue pipe, built with a narrow scale and imitating, to a certain degree, orchestral string instruments.
Sub-octave coupler	See *Octave coupler*
Swell	A division enclosed in a box fitted with shutters which are controlled by a pedal at the console, allowing some dynamic variation.
Swell Organ	The second most important division to be found on the British organ. All of the pipes are enclosed in a box and there are shutters controlled by a swell pedal.
Thumb piston	A button situated between the keyboards which operate pre-determined combinations of stops.
Toe piston	A button situated above the pedalboard which operate pre-determined combinations of stops.
Tracker action	A type of action where there is pure mechanical linkage from the keyboard to the pallets on the soundboard.
Tremulant	A device that causes creates a vibrato effect by shaking the wind supply.
Unison off	A stop that causes all of the notes on a particular manual (normally the Swell or Solo) to stop playing, allowing the performer to create special effects by using the octave and/or sub-octave coupler(s).
Unit organ	See *Extension system*
Upperwork	All high pitched stops, normally understood to refer to those stops of 2ft. pitch and above.
Voicing	The act of adjusting a pipe (flue or reed) so that it speaks correctly.
Werkprinzip	A term that describes the system for building organs in which each division has its own separate structure

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1 Introduction

1.1 Pre-amble

The organ is an ancient instrument, with a long and complex history, and it continues to sustain the interest of players and listeners alike, despite the many competing developments in other forms of music in the twenty-first century. There is the emotive thrill of its sheer power, along with its wide range of colour; there is the beauty of its many shapes and sizes, the sheer physicality of the cases, and the musical variety offered by the many schools of composition; there appears to be a limitless supply of instruments, with always another organ for the enthusiast to discover, sometimes in the most unlikely or unexpected place. For the performer there is always the challenge of grappling with a mechanically complex instrument that does not always behave the way one would like it to, in the quest to perform some of the world's most wonderful music, along with, it has to be admitted, some of the world's worst.

This thesis started its life with one question. In 2005, for one of my organ recitals, I programmed Kenneth Leighton's *Paean*[1] and whilst rehearsing the piece my attention was drawn to a sentence on the score's first page, which stated that the first performance of the piece was given by Simon Preston in the Royal Festival Hall on January 25th 1967. Nearly forty years after this event I found myself asking: how did the audience on that occasion react to this very vivid and dramatic composition? I found the answer lay in the review by Basil Ramsey in the Musical Times:

> A brand new Paean by Leighton sizzled with energy, and screwed up the harmonic tension just enough to make the audience respond with enthusiasm rather than respect. [2]

[1] Leighton, K. (1967) *Paean* Oxford: Oxford University Press
[2] Ramsey, B. (1967) Recitals. *The Musical Times,* Vol. 108, No. 1489 March p255

It was intriguing to think that this audience, full of worthy organ connoisseurs (the recital was part of the Organ Club's 40th anniversary celebrations), responded with enthusiasm for a piece that, arguably, was not the expected soothing tuneful rumble, the type of music heard before countless choral evensongs, but was rather a vigorous romp, full of pounding jagged rhythms and dissonant chords. This one question led on to further thoughts:

- Was Leighton's *Paean* a good example of British organ music in the 1960s and how did it relate to the general repertoire of the organ at the time?
- Was the organ used for this first performance (the instrument in the Royal Festival Hall) a typical example of 1960s British organs?
- With authenticity in performance ever growing in significance what practical lessons could be learnt by researching into the mid twentieth-century British organ?

A seed had now been planted, with preliminary reading around the subject indicating that this was an area worthy of further investigation which could assist with the playing of twentieth-century British organ music. It was not to be expected that research into this area would radically affect one's playing, akin to the way that research into Baroque organs led many organists from the 1950s onwards to completely change their approach to playing Bach's organ music, but nevertheless it was evident that the player of today had become subtly distanced from the instruments of the 1960s, due to the significant advances made in tonal designs and mechanisms of British organs over the past fifty years.

The starting point for the research was to decide upon a suitable time-frame to contain the investigation and it seemed logical to start at 1945, the end of the Second

World War, when the state of organ building in Britain was at a particularly low ebb, and follow through over a twenty-five year period to 1970, when the effect of the Organ Reform Movement (ORM) was most evident. Having established a time-frame, the next task was to identify the music written for the organ in Britain in this period and this resulted in a list of well over eight hundred pieces.[3] From this list a recital programme was devised[4] that reflected the broad trends of solo repertoire written from 1945 to 1970, within the constraints of the university's regulations of 60 minutes performing time, with the aim of presenting a performance informed by the research into the instruments of the period.

1.2 Setting the scene

Before moving onto issues raised from the pre-amble it is necessary to give a brief overview of relevant background information in these areas:

- The development of the organ in Britain up to 1945
- The Organ Reform Movement

1.2.1 The development of the organ in Britain up to 1945[5]

Whilst all histories of the organ agree that the organ is an ancient instrument it is not possible to say with true authority when the instrument came into being. However, it is generally accepted that Ctesibius (an engineer from Alexandria) did invent a mechanical

[3] See Appendix 17
[4] See Appendix 18
[5] For comprehensive details of the history of the organ see *inter alia*:
Bicknell, S. (1996) *The History of the English Organ.* Cambridge: Cambridge; Williams, P. M. (1980) *A new history of the organ: from the Greeks to the present day.* London: Faber; W. L. (1973) *The organ, its evolution, principles of construction and use*. London: MacDonald; Wills, A. (1984) *Organ.* London: Macdonald.

device in the third century BC that had characteristics not dissimilar to what is perceived as an organ nowadays.

In Britain the development of the organ did not follow that of the organ on the continent, where in countries such as Germany and the Netherlands by the fifteenth century there could be found large and highly developed instruments, with some organs having up to four manual divisions, along with fully independent pedal divisions. The British organ was for many years much simpler and up to the time of the Reformation British organs would have had no more than one manual and a maximum of six stops, reflecting the focus in Britain on choral music in the liturgy. From the Restoration period onward organs gradually grew in size and scope, with two or even three manuals becoming more common, though even at this point in time pedal divisions were not included.

By the middle of the eighteenth century in Britain pedal pull-downs had become quite common – these were not pedalboards or separate divisions as known today but rather were simple devices allowing the player to operate the bottom notes of the main division (i.e. the Great) by utilising the feet. It was not until the middle of the nineteenth century that organs came to be built with complete pedal divisions, partly due to the growing awareness and interest in the organ music of J. S. Bach for which a pedal division is normally essential.

The overall size and scale of organs grew considerably in the Victorian age, reflecting the extraordinary development in industry both in Britain and other countries. With the increase in size came problems of design, with key actions becoming intolerably heavy, and it was the invention of assisted key actions, firstly pneumatic and then electric, that helped make the playing experience become acceptable once again.

However, with such technical advances there came further incentives to build ever larger and more complicated instruments, moving the organ, in some commentators' eyes, away from its musical heritage. This seemingly unstoppable march of size and ambition was interrupted firstly by the Depression of the 1920s and 30s and secondly by the ravages of the Second World War.

1.2.2 The Organ Reform Movement

In the early 1900s there was a gradual awakening of interest in organ music from earlier periods, particularly in France and Germany, and at a seminal conference in Freiburg in 1926 the *Orgelbewegung* (Organ Reform Movement) was born, establishing key principles relating to the classical revival, based on designs of the great organ masterpieces of the seventeenth and eighteenth centuries:

1. Utilising tracker (mechanical) action
2. Using low wind pressures
3. Unforced voicing of pipes, with an absence of pipe "nicking"[6]
4. Fully developed flue choruses
5. Reed stops used appropriately[7]
6. Avoidance of Romantic stops
7. Musical needs dictating the layout of the organ[8]
8. Minimal playing aids, if any

As with other aspects of organ design, it is our European neighbours who have led the way and it was not until after the Second World War that in Britain the interest in

[6] An unforced pipe should speak with its natural harmonics in place, resulting in both warmth and clarity.
[7] i.e. using the reeds as chorus stops, to blend with the fluework, and as colourful solo registers.
[8] Each division should be conceived as a separate entity with its pipes contained in its own case.

older organs grew significantly, not so much at first with British historic organs from the eighteenth century because of their perceived 'simplicity', but more particularly with those instruments to be found in countries such as Germany and the Netherlands. The concept of an Organ Reform Movement was established in Britain though the term 'neo-classic' (sometimes just 'Classical', or even 'neo-Baroque') was used frequently when referring to instruments influenced by historical models. In the period c.1945 to c.1970 there were principally two different strands of organ design, the traditional and the classical, and the gradual increase in tension between these opposing schools of thought are now considered.

1.2.3 The traditionalists in the middle of the twentieth century

In Britain the move towards adopting features of the Organ Reform Movement was a slow affair, despite the passionate advocacy of strong personalities who were to be found amongst both professional musicians and armchair theorists. The notable firm of Walkers was, on the one hand, continuing House Traditions

> such as revoicing chorus reeds with the addition of harmonic trebles, enclosing Choir organs, adding Dulciana and or Lieblich Gedackt units to Choir organs, duplexing Great reeds to Choir and Pedal organs and … much Pedal extension and borrowing.[9]

and yet, on the other hand, was building new organs such as for St Mary the Virgin, Oxford[10] which was described by Clutton in glowing terms: 'this can truly be described

[9] Plumley (2002) op.cit.p228

[10] St Mary the Virgin, Oxford (the University Church). Organ by Walkers 1951
Gt: 16 8 8 8 8 4 4 2⅔ 2 III (tierce mixture) 8 (ch) Sw: 8 8 8 8 4 2 III 16 8 8 4 Ch: 8 8 4 4 2 II (12,17) 8 8 Pedal: 32 16 16 16 10⅔ 8 8 4 4 16 16 8 Some extension

as a model organ.'[11] This has to be balanced against other contemporary instruments, such as those at St Michael's Oxford,[12] built by Willis[13], and at Wisbech Parish Church,[14] built by Harrisons,[15] where the tonal designs seemed to revert to a much earlier part of the twentieth century.

There was considerable resistance to reform of the British organ, due to a particularly British mind-set that was suspicious of all things foreign, and it is no exaggeration to say that this period was tense and often troubled. As Bicknell notes:

> To advance Neo-Classical ideas around 1950 was considered eccentric; to combine this with outspoken criticism of typical English organs was no less than treason.[16]

In the twenty-first century resistance to the ORM is still prevalent, with strong emotions still aroused; in a recent survey by Freke one organist summed up the feelings of many organists of today:

> Lots of spitty, strident Neo-Baroque organs incapable of coping with the staple Romantic repertoire of Howells et al, and supplanting some fine English style instruments which are.[17]

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[11] Clutton, C. (1951) The new organ in the University Church of Saint Mary the Virgin, Oxford. *The Organ* October Vol. XXXI no.121. pp60-66. This was a new instrument by Walkers that replaced the fire damaged earlier instrument. Built into a Classical case, on the screen, this was a substantial instrument of three manuals and with electric action.

[12] St Michael's Oxford. Organ by Willis 1954
Gt: 16 8 8 8 4 2; Sw: 8 8 8 8 4 III 16 (Dulzian) 8; Pedal: 32 16 16 8 8 4 4 16

[13] Parkes, A.D. (1955) The new organ of St Michael's Church, Oxford. *The Organ* July Vol. XXXV no.137 pp41-44. Note, though, the unusual 16' reed (Dulzian) on the Swell.

[14] Wisbech P.C. Organ by H&H 1951
Gt: 16 8 8 8 8 4 4 2⅔ 2 III (17.19.22) 8 4; Sw: 8 8 8 8 4 4 2 III 16 8 4 Choir: 16 8 8 8 8 4 4 2 8 8 8 4 8; Pedal: 16 16 16 16 32 16 16 8

[15] Elvin, L. (1956) The organs of Wisbech Parish Church. *The Organ* January Vol. XXXV no.139 pp145-146

[16] Bicknell op. cit. p336

[17] Freke, M.J. (2006) *Organists in the Church of England 1950-1999: An Ethnographic and Contextual Study in relation to the dioceses of Bristol and Bath and Wells*. University of the West of England, Bristol. Unpublished PhD thesis. p264

Part of this resistance is in relation to the challenge of accompanying traditional British liturgical music on Classical organs, but the resistance is also in relation to playing solo repertoire of an overtly romantic nature.

The term 'Baroque organ' was being used in British organ circles with growing frequency in the middle of the twentieth century but not always in a positive manner. Writing in the late 1940s to *The Organ* magazine the famous American organ builder Ernest M. Skinner[18] categorically stated that 'the Baroque organ is destitute of artistic development'[19] and 'that I do not care to build the so-called Baroque organ.'[20]

These comments might be interpreted to indicate that Skinner did not care for the sound of the Baroque organ, but it might also be the case that he felt it was not artistically honest for a man of his undoubted integrity to try to emulate the work of organ builders of an earlier age.

Similar views were expressed publicly by Ralph Vaughan Williams in 1951 as part of the debate about the proposed new organ for the Royal Festival Hall. Vaughan Williams was arguably the most senior and famous British composer of the time and his trenchant comments were inevitably taken seriously by a number of organists:

> I admit that we have some bad organs in England, but at their worst they cannot surely make so nasty a noise as most of those on the Continent. As to the so-called Baroque organ, which, I presume, I have heard at its best at the hands of the most distinguished performers. I can only compare it to a barrel organ in the street. This type of instrument is said to be right for playing Bach. For myself, I want nothing better than Bach as

[18] Ernest M. Skinner (1866-1960) was a very successful American organ builder of the early twentieth century. He had a lifelong interest in orchestral tone colours and built large organs for some of the most prestigious churches and concert halls in the USA.
[19] Skinner, E.M. (1949) Letters to the Editor. *The Organ* January Vol. XXVIII no.111 p141
[20] Skinner, E.M. (1950) Letters to the Editor. *The Organ* January Vol. XXIX no.114 p148

played by Dr Harold Darke on his typically English organ of St Michael's Cornhill.[21]

From today's viewpoint Vaughan Williams's extreme reaction seems surprising, from a man of significant stature and experience, who had trained as an organist to a professional level and possessed, presumably, a reasonable understanding of the instrument.[22] However, he was very much a man of his time, in many ways still very Edwardian, if not even Victorian, in his mind-set, and it is possible he was articulating the feelings of many British organists of the time; he clearly had a genuine dislike of the tonal characteristics of the Baroque organ, having grown up surrounded by the more dull-toned instruments of the first half of the twentieth century.

The reference to 'a barrel organ in the street' is possibly an example of Vaughan Williams's sense of humour but he would appear to be alluding to the emphasis on high-pitched ranks (predominantly Mixtures) to be found on organs influenced by the ORM. Mixtures have been an integral part of the chorus in organ design from the earliest times and it was only in the early part of the twentieth century, particularly in Britain, that their inclusion and use fell out of favour. In the 1920s the virtuoso French organist Marcel Dupré, in his recital at Westminster Cathedral, used Mixtures for the performance of Bach Fugues and Ralph Downes recollected the sensation this caused, showing how the British organist of the time was not sympathetic to the use of such stops.[23]

The rebuild in 1939 of St Augustine's, Brighton, with a series of higher mutation stops on the choir, caused Darling to declare that mutations are 'imps of the organist's

[21]Vaughan Williams, R. (1951) Letter to the Editor. *The Times* 14 January 1951

[22] Vaughan Williams was for a while organist of St Barnabas Church, Pimlico and earned his FRCO diploma in his twenties. This latter achievement apparently amazed a number of his friends, who did not rate him as a player.

[23] Downes, R. (1983) *Baroque tricks: adventures with the organ builders*. Oxford: Positif Press. p22

pallet and a joy to the player who revels in unconventional registrations.'[24] This colourful language reinforces the impression that it was not the norm to utilise these stops.

A flavour of the prevailing attitude in the 1940s in Britain from organists towards mixtures can be found in *The Organ.* Bonavia-Hunt in 1946 stated that 'many organists are of the opinion that Mixtures are unnecessary and that modern chorus Reeds take their place.'[25] In the same year Percy Dodsworth stated that 'the Fifteenth and the four-rank Mixture are only used with the full Great, being rather too brilliant for use without the Reeds.'[26] Stubington in 1948 was enthusiastic about the wide tonal pallet of Broadway Parish Church,[27] where there was a complete absence of Mixtures, whilst the organ in St Oswald's, West Hartlepool,[28] built in 1948, appeared to be designed as homage to Hope-Jones,[29] with no pitch above 4 ft. Despite this, the reviewer Godfrey was enthusiastic, saying that 'the blend of this section (i.e. the Great) is very much above the average and the lack of upperwork is most skilfully obviated.'[30]

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[24] Darling, L. (1947) The organ of St Augustine's Parish Church *The Organ* Vol. XXVI January no.103 p120
[25] Bonavia-Hunt, N.A. (1946) Letters to the Editor. *The Organ* Vol. XXV January no.99 p143
[26] Dodsworth, P. (1946) The organ at All Saints' Gosworth, Newcastle-on-Tyne *The Organ* Vol. XXVI October no. 102 p89
[27] Stubington, H. (1948) The organ in Broadway Parish Church *The Organ* Vol. XXVIII October no.110 pp 70-74

[28] St Oswald's West Hartlepool. Organ by Gray & Davidson 1948
Gt: 16 8 8 8 4 16 8; Sw: 8 8 8 4 4 8 8 (tuba); Ch: 16 8 4 8 8 8 8 4 8 8 Solo: 16 8 4 16 8; Pedal: 32 16 16 16 8 8 16 16 8

[29] Robert Hope-Jones (1859-1914) was a telephone engineer who moved onto organ-building. A highly opinionated man, he made radical changes to tonal structures of organs (using high pressures and stripping instruments of mutations and mixtures) that considerably damaged the art of organ building in both England and America. For further detail see: Clark, R. (1993) *Robert Hope-Jones, M.I.E.E.: an interim account of his work in the British Isles*: University of Reading. Unpublished PhD thesis
[30] Godfrey, A. (1949) St Oswald's Church, West Hartlepool and its organ *The Organ* July Vol. XXIX no.113 p20

However, there were others who were not satisfied with this situation, including the influential authority William Sumner. Writing in 1947 he was highly critical of such organs lacking upperwork; in his overview of organs in the city of Oxford[31] Sumner cited two college organs[32] that appeared to have little or no concept of chorus in their design. Another authority, Bonavia-Hunt, in the 1940s put forward a case for the inclusion and use of Mixtures, asking all to

> conduct a new and intensive research into the possibilities of the Mixture and seek to perfect that which our forefathers have handed down to us.[33]

He added two years later:

> One thing is abundantly clear: the whole subject of mixture treatment and voicing is yet in its infancy.[34]

Amongst the traditionalists there were a handful of amateur organ critics and writers who exercised considerable influence in swaying public opinion on organ design. With the rise of the professional organ advisor[35] in more recent times there is a tendency to criticise these amateurs from the past, seeing them as having had too much influence without being fully informed, but care must be taken, for, as one writer has noted, 'revisionist writers have tended to disparage the educated amateur musicians of yesteryear.'[36]

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[31] Sumner, W.L. (1947) Some Oxford organs *The Organ* April Vol. XXVI no.103 pp158-164

[32] Two Oxford College Organs in the 1920/30s	
Merton College. Organ by Rushworths 1924	St John's College. Organ by Harrisons 1936
Gt: 8 8 8 8 4; Sw: 8 8 8 8 4 8; Ped: 16 16 16 8	Gt: 16 8 8 8 8 4 4 2; Sw: 8 8 8 8 4 8 8; Ped: 16 16 8

[33] Bonavia-Hunt, N.A. (1945) Why Mixtures? *The Organ* Vol. XXV no.97 p29
[34] Bonavia-Hunt, N.A. (1947) *The Modern British Organ: A theoretical and practical Treatise on the Tone and Mechanism of the King of Instruments.* London: A. Weekes & Co. p97
[35] See, inter alia: www.paulhale.org; http://www.aioa.org.uk/advisers/members/williamMc.htm; http://www.aioa.org.uk/advisers/members/ianB.htm
[36] Shenton, K. (2000) 'A Cumberland Connoisseur' Lt.Col. George Dixon 1870-1950 *The Organists' Review* Vol. LXXXVI November p319

Cecil Clutton (1909-1991) was by profession a chartered surveyor but was described in his obituary as an expert on organ studies, horology and vintage motor cars. Clutton had immense self-belief and influence but the comment in his obituary that Clutton 'never pretended that his view was other than a personal one'[37] does not really tally with the tone in much of Clutton's writings, in which he was not afraid to make grand statements such as '(there is) little reason to think or wish that we shall ever see a baroque revival in this country.'[38] This came from an article Clutton wrote in 1939 for *The Organ* about the new neo-classical instrument built in 1935 at Cleveland Lodge[39] and would appear to place Clutton firmly in the traditionalists' camp – however, as will be seen in the next section, he changed his allegiance within a relatively short time-frame.

Another influential commentator, and sometime collaborator with Clutton, was George Dixon (1870-1950). Dixon was an intelligent and well-motivated man, with very strong opinions about the organ[40], but yet was not really a true musician (as Dixon himself admitted[41]). Symptomatic of the traditionalists' view on tonal matters is the observation by Clark that Dixon

> devoted much thought to the idea of a pocket-sized cathedral organ, an instrument in which all or a good number of the usual cathedral noises – Full Swell, Tuba, Pedal Reed, etc. were obtained from about 30 stops.[42]

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[37] Niland, A. (1991) Cecil Clutton *The Organists' Review* Vol. LXXVI June p89
[38] Clutton, C.(1939) Lady Jean's Baroque Chamber Organ *The Organ* January Vol. XIX July p39

[39] Cleveland Lodge, Dorking (home of Susi Jeans). Organ by Eule/HNB 1935
Hauptwerk: 8 4 4 2⅔ 2 III; Oberwerk 8 4 2 1⅓ 1; Pedal: 16 8 4 2

[40] Clark, R (1996) George Dixon; a reappraisal *BIOS Journal 20* p86
[41] Clutton, Cecil and Dixon, George (1950) *The Organ Its tonal structure and registration*. Preface p8 'It may seem the height of presumption for the authors, neither of whom could, by any stretch of imagination, be regarded as a competent organ player, to attempt to deal with Registration.'
[42] Clark (1996) op. cit. p90

These ‘cathedral noises’, especially the Full Swell combination and the Tuba stop, are peculiar to the British Organ but alien to Classical organ schemes and the traditionalists felt threatened by suggestions that such sounds be removed from British tonal designs.

Much like Clutton, Dixon had no qualms about expressing strong views on many aspects of organ design. He was not against the inclusion of mixtures and mutations in organ design and he gave the impression that he was acquainted with historic German organs. He spoke of

> (the) organs in Bach’s day, though defective in many ways (especially in their crude reed work) had light, clear-toned flue stops with abundant mixtures.[43]

The phrases *‘defective in many ways’* and *‘crude reed work’* sound patronising, revealing more about Dixon’s personal prejudices rather than presenting a considered critique of specific tonal issues. Whether or not Dixon had first-hand experience of such instruments is not fully clear in his writings, but nevertheless he showed an appreciation of aspects of voicing and design that became increasingly important over the next few decades.

Opinions from commentators in recent years about British organs of the early years of the twentieth century are not always positive. Peter Williams says that

> the ripe ‘late romantic’ organ of 1900 produces an unpleasing sound even when it is playing music written at the time for it. [44]

Peter Williams’s comment ‘unpleasing sound’ is rather subjective, although he does go on to itemise those characteristics that, in his view, contributed to the organ of this period sounding unattractive:[45]

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[43] Dixon, G. (1946) Divided Great Organs *The Organ* Vol. XXV January no.99 p119
[44] Williams (1980) op.cit. p183

1. Electric action (often with a detached console)
2. Poor-toned pipes
3. Poor case design – often a mere case-façade
4. Designed for music written for another instrument(s) or another culture.

The last characteristic reveals Williams's dislike of arrangements for the organ, reflecting a general feeling in the latter years of the twentieth century. It must be noted, however, that in recent years tastes have turned nearly full circle, with a noticeable revival of the inclusion of transcriptions in organ recital programmes, with advocates including notable recitalists such as Thomas Trotter (organist of Birmingham Town Hall) and David Briggs (former organist of Gloucester Cathedral) regularly performing such works, not only transcriptions dating from the late nineteenth and early twentieth centuries but also original transcriptions of their own.[46]

John Rowntree's view, particularly of British organs in the years immediately prior to 1914, is as damning as Williams, seeing them as

> loud, ponderous, with powerful and bland reeds, smooth voicing and the inevitable high wind pressures.[47]

More measured thoughts come from Sumner who, when talking about the designs of the organ builders Harrisons, noted that the firm produced what came to be seen as the archetypal British cathedral organ of the twentieth century: 'rolling Open Woods….contrasted reed tones of Swell and Great…beautiful voicing of the soft stops.' Sumner does go on to admit, however, that such an organ 'was not ideal for rendering

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[45] Ibid.p187
[46] Briggs is particularly ambitious and now includes in his programmes his own transcriptions of complete Mahler symphonies.
[47] Rowntree, J. (1979) Organ reform in England – some influences. *BIOS Journal 3* p5

the traditional music of the organ.' [48] By 'traditional' it can be presumed Sumner was referring primarily to the music written in the Baroque period. Further thoughts on this type of organ come from John Norman,[49] speaking with authority as an organ builder, saying that the typical Arthur Harrison organ had a smooth, almost hesitant speech because of the amount of nicking that was used in the voicing process, suggesting a more measured approach to performing is required when playing such instruments.

1.2.4 Winds of change - Classical influences

As with all significant trends in musical history changes occur slowly and there was not an overnight conversion to neo-classicism in the world of British organ building. Isolated examples of radical changes can be found as early as 1937 when Ralph Downes and Reginald Walker (of the firm of J.W. Walkers) discussed a proposed neo-classical design by Walker[50] which had an unusually high number of mixtures and mutations, including on the Pedal a 2ft. stop and a mixture.[51] This was simply a paper specification but a decade later the same firm of organ builders rebuilt the organ in St Gabriel Archangel, Cricklewood,[52] and this instrument included many features that showed more than a passing acquaintance with Classical design.[53] A few years later, in

[48] Sumner (1973) op.cit.p243
[49] Norman, J.(1984) *The Organs of Britain* Newton Abbot: David & Charles Inc. p98

[50] Design from 1937 taken from correspondence between Downes and Walker
Gt: 8 8 4 4 II (12,15); Sw: 8 8 4 IV (15,17,19,22) 8 Pos: 8 8 4 2⅔ 1⅗ III (22,26,29); Pedal: 16 16 8 8 4 2 II (19,22)16 8

[51] Plumley, N. (2002) JW Walker & Sons Ltd. Seeds of change 1922-1955 *The Organists' Review* Vol. LXXXVIII August p231
[52] Niland, A. (1950) The organ of the church of St. Gabriel Archangel, Cricklewood *The Organ* Vol. XXX October no.110 pp 71-78

[53] St Gabriel Archangel, Cricklewood. Organ by Walkers 1949
Gt: 16 8 8 4 2 IV II (26,29); Positive: 8 8 4 2 III (15,17,19) 8 /Bombarde: 16 8 4 Sw: 8 8 8 8 4 4 IV IV (26,29,33,36) 8 16 8 4 (last three unit) Pedal: 32 16 16 16 16 8 8 8 5⅓ 4 4 IV 16 8 4 16 8 4

1952, the organ builders Hill, Norman and Beard showed what could be done when a builder was given, unusually, a free hand in the design, with the organ at Christ Church, Crouch End, North London.[54] This instrument was noted by Austin Niland for its clarity and transparency of texture, [55] although Niland does complain that the unenclosed Choir tries to be a miniature Great organ (which was a trademark of George Dixon whose influence was still to be seen in some designs). Other instruments of the late 1950s/early 1960s that reflected understanding of Classical concepts included the Italian Church, Hatton Garden,[56] (with several unusual design features[57]) the Mormon Church of Hyde Park Chapel,[58] (a caseless design with a functional display[59]) the Brompton Oratory,[60]

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[54] Christ Church Crouch End, London. Organ by HNB 1952	
Before rebuild (Hill 1906)	After rebuild
Gt: 16 8 8 8 4 4 2⅔ 2 8 Sw: 16 8 8 8 8 4 4 III 8 8 Choir: 8 8 8 4 8 Pedal: 16 16 8 16	Gt: 16 8 8 8 4 4 2⅔ 2 II (17,19) IV 8 Sw: 8 8 8 8 4 4 2 III 16 8 Choir: 8 8 4 2 II (unenclosed) 8 4 2⅔ 1⅗ 8 encl. 8 4 (gt) Pedal: 32 16 16 16 8 8 4 II 16 8

[55] Niland, A. (1957) The organ at Christ Church, Crouch End. *The Organ* April Vol. XXXVI no.144 p176

[56] Italian Church, Hatton Garden, London. Organ by Walkers 1959
Gt: 16 8 8 4 4 2⅔ 2 II (19,24) III 8 ; Sw: 8 8 8 8 4 4 2⅔ 2 IV 16 8 8 Choir: 8 4 4 2⅔ 2 1⅓ II (26,31) III 8; Pedal: 32 16 16 16 8 8 8 5⅓ 4 4 IV 16 16 8 4

[57] Clutton, C. (1960) The organ in the Italian Church, Hatton Garden. *The Organ* January Vol.XXXIX no.155 pp135-140. The impression is that the builders and designer were feeling their way here. Unusual features from today's perspective include a west gallery location but with electro-pneumatic action, and an unusual case design in what was avowedly a Baroque influenced instrument. Yet the specification is decidedly a Classical one, with complete choruses on all divisions and a number of mutations.

[58] Hyde Park Chapel (Mormon) Organ by HNB 1961
Gt: 16 (quintaton) 8 8 4 2⅔ 2 IV 8 Sw: 8 8 8 8 8(flute celeste) 2⅔ 4 4 2 III II (26,29) 2⅔ 16 8 4 Ch: 8 8 4 4 2⅔ 2 1⅗ 1 8 4; Pedal: 16 16 16 (Gt) 8 8 4 4 II 16 (sw) 16 8 4

[59] Clutton, C. (1961) The new Hill, Norman and Beard organ in the Hyde Park Chapel, London. *The Organ* October Vol. XXXIX no 162 pp57-63. The specification shows HNB making a valiant attempt to acknowledge the Baroque influence and yet stops such as a Flute Celeste showed that their thinking was a little confused.

and All Hallows, City of London.[61] The latter's new organ by Harrisons caused a sensation at the Congress of Organists in 1957, with many 'surprised to see such a progressive attitude in English organ building.'[62]

Key figures advocating the Classical approach included Gilbert Benham,[63] the Rev. B.B. Edmonds[64] and Michael Gillingham,[65] but it is generally agreed that Ralph Downes was the most influential personality in the post-War organ world. Early on in his career Downes underwent a road to Damascus conversion with regard to organ design and was very lucid in explaining his thinking behind the notable instruments he was responsible for designing.[66] Inevitably, a man with such visionary ideas and missionary zeal attracted much criticism and, at times, even resentment:

> It seems to be the fashion nowadays for organ theorists (but not the finest players, one notes) to discredit most of which is

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[60] Brompton Oratory. Organ by Walkers 1954
Gt: 16 16 8 8 4 4 2⅔ 2 II IV/V 8; Sw: 8 8 8 8 4 4 2⅔ 2 1⅗ IV III 8 8 Ch: 8 4 4 2⅔ 2 1⅓ II IV 8; Pedal: 16 16 10⅔ 8 8 5⅓ 4 2 IV 16 8 2

[61] All Hallows, Barking by the Tower	
Harrisons 1911	Harrisons 1957
Gt: 16 8 8 8 4 2⅔ 2 III 8 4 Sw: 8 8 8 8 4 III 8 16 8 4 Ch: 16 8 8 4 2 8 Pedal: 32 16 16 16 8 8 16 4 composition pedals to pedal, 4 pistons to swell, 4 to great, gt/pd reversible	Gt: 16 8 8 8 4 4 2⅔ 2 IV 8 4 (reeds enclosed) Sw: 8 8 8 8 4 4 2⅔ 2 1⅗ III 16 8 4 Ch: 8 4 4 2 2 II (sesq) III 8 8 4 (last 2 Gt) Pedal: 16 16 16 8 8 4 III 16 8 4 5 toe pistons to pedal, 4 pistons to choir, 5 each to great and swell, one general piston, reversibles, adjustable by switch.

[62] Turner, J. (1992) Gordon Phillips (1908-1991) *The Organists' Review* Vol. LXXVIII December p301
[63] Benham, G. (1945) Letters to the Editor *The Organ* July Vol. XXV no.97 p43 Benham admitted he was now more in favour of loose, open, transparent tone – the antithesis of the Hope-Jones school of voicing.
[64] Thistlethwaite, N. (2003) The Rev. B.B. Edmonds (1910-2003) *The Organists' Review* Vol. LXXXIX August p231
[65] Bell, I. (2000) Michael Gillingham (1933-1999) *The Organists' Review* Vol. LXXXVI February p37. Gillingham acted as a consultant for many organ projects and had considerable sway despite *'never aspiring to a detailed knowledge of the technicalities of organ building'*.
[66] Downes, R. (1953) Basic Principles: And Two New Organs *The Musical Times*, Vol. 94, No. 1323 pp.220-222. At the end of the article, quoting the specifications of the Oratory and RFH instruments, he divides the stops into three subdivisions:
Principal group (e.g. diapasons)
Wide-scaled group (e.g. certain flutes)
Special stops (e.g. strings and reeds)

> characteristic of the last 75 years of organ-building. Is it just possible that by the year 2000 others will equally discredit us? [67]

The writer here was a cathedral organist and was one of many traditionalists deeply upset by Downes's lasting monument to neo-classicism, the highly innovative organ in London's Royal Festival Hall. Ralph Downes was the designer, the builders were Harrisons. The organ was completed in 1954, and its radical approach to tonal design and voicing was to have a profound effect for many years on British organ building, playing and composition. Even today it remains a controversial instrument, producing mixed feelings from major recitalists:

> (I) never really relaxed with the instrument. It seemed wise to play safe and stick with one's pre-concert preparation and not deviate from them.[68]

and academics:

> ..the quasi-comprehensive nature of the organ (i.e. that in the RFH) results in little more than an outmoded compromise organ characteristic of a period, still with us, in which eclecticism seems a possible and worthwhile aim.[69]

Some contemporary writers appreciated the instrument's distinctive qualities, particularly the cohesive choruses in each division, the very complete scheme of the Pedal organ, the unusual abundance of mixtures, and the lack of octave couplers;[70] equally, however, there were frankly hostile responses from not just established organ

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[67] Conway, M. (1955) Letters to the Editor. *The Organ* July Vol. XXXV no.137 p53. Conway (at the time organist of Ely Cathedral) is possibly having a quiet snipe at Downes himself here.
[68] Derrett, P. (2004) 50 years ago at the Royal Festival Hall – Richard Popplewell talks to Paul Derrett *The Organists' Review* Vol. XC February p36. Popplewell (1935-2016) played regularly at the RFH and knew the instrument well.
[69] Williams (1980) op.cit.p204.
[70] Swinyard, L. (1951) The organ for the Royal Festival Hall, London. *The Organ* April Vol. XXX no.120. p164 'Their (i.e. octave couplers) use in most English organs has the result of a thick muddiness which obscures the texture and destroys any hope of a clear polyphonic outline in playing, even if it does give the player the illusion that he has a far larger instrument than his specification would warrant.'

builders,[71] but also important musical figures,[72] with public declarations including 'screaming Victorian mutations (that) W.T. Best likened to broken glass'[73] and 'a hideously shrill, screaming, blaring monstrosity ……a particularly ugly and undesirable monument to the designer.'[74]

Clearly, the passions aroused by this organ were so strong that the usual British reserve was abandoned and, for some, war was declared on both the instrument and Ralph Downes himself.

From the early 1960s there was a significant increase in the rebuilding of organs with what were perceived to be improvements, where many organists, builders and consultants considered the organs to be of limited interest unless they spoke on low wind pressures and included a brace of mixtures and mutations. The Choir Organ, in particular, was targeted, with commentators such as Dixon damning the typical British Choir Organ of the middle of the twentieth century, calling it 'feeble, a collection of tootling flutes without any definite tonal structure.'[75]

Organists and composers must have known from personal experience what the effect would be if the Choir Organ was used - some thought the Choir Organ was designed for quiet accompaniment work (Stubbs[76]) whilst others (Webb[77]) were obviously keenly aware of its historical development. Webb compared the typical

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[71] Downes, Ralph. (1983) *Baroque Tricks* Oxford: Positif Press p87
[72] Elvin, L. (1977) *The Harrison Story* 2nd edition Lincoln: Keyworth and Fry. On p176 Elvin quotes the letter from Vaughan Williams to The Times, and follows it with J.A. Westrup's reply (21.1.51): 'in England we seem to prefer a sonorous rumble and the adding of one noble diapason to another is regarded as sound registration.'
[73] Smith, P.S. (1954) Letters to the editor. *The Organ* April Vol. XXXIII no.132 p199
[74] Marr, L.G. (1954) Letters to the editor. *The Organ* July Vol. XXXIV no.133 p54
[75] Dixon, G. (1946) Divided Great Organs. *The Organ* January Vol. XXV no.99 p18
[76] Stubbs, F. (1945) The organ in Dunblane Cathedral *The Organ* July Vol. XXV no.97 p18
[77] Webb, F. (1947) The Choir Organ and its development *The Organ* January Vol. XXVI no.103 pp139-142

British Choir Organ from c.1945 with that of Choir divisions to be found in organs from the Baroque, nineteenth-century France and contemporary America:

Contemporary British *c.1945*	8 8 8 4 2 8
Silbermann **(***mid eighteenth century German)*	8 8 4 4 2⅔ 2 1⅗ 1⅓ 1 III 8
Cavaillé-Coll *(mid nineteenth century French)*	8 8 4 4 2⅔ 2 1⅗ III V 8 8
Æoline Skinner *(mid twentieth century American)*	8 4 2⅔ 2 1⅗ 1⅓ 1 III

Illustration 1:1: Comparison of Choir divisions

The 1945 British specification is typical of many Choir Organs before the rise of neo-classicism, with the British instrument appearing to be tonally limited when compared with the wealth of colour and highly developed pitch choices in the other three designs. However, it must be noted that in many British organ compositions pieces from the period c.1945-c.1970 registration directions for the Choir are frequently found, suggesting that despite the apparent limitations composers did expect to see this division being used.

As early as 1948 Clutton was making suggestions as to how the instrument in St Michael's College, Tenbury could be, in his view, 'improved'.[78] Clutton suggested that the Choir Organ of:

8' 8' 8' 8' 4' 4' 4' 2' 8'

be changed to:

8' 8' 4' 4' 2' II (12,17) III 16' 8'

making an altogether different division. This trend can be followed in the many articles in *The Organ* in the 1950s and 1960s which focused on rebuilds where radical changes

[78] Clutton, C. (1948) Organ in St Michael's College, Tenbury. *The Organ* January Vol. XXVII no.107 p114

were made to Choir divisions.[79] Even a committee of establishment figures (Ernest Bullock, Osborne Peasegood, both of Westminster Abbey, and George Thalben-Ball, of the Temple Church), who might be expected to have held very traditional views about tonal designs, was recommending in 1960 a Positive division for the new organ at St Bride's Church, Fleet Street, London[80] that was as far removed as possible from Dixon's 'tootling flutes'; here, the Positive division was conceived decisively in the manner of a Baroque organ:

8' 8' 4' 4' 2' 1⅗' 1⅓' Zimbel (III)

contrasting sharply with the very traditional elements of the other divisions of this substantial organ.

John Norman's example of a typical rebuild of 1957,[81] with its contrasts of language and styles, is another case of a mixed message common at this time. In this scheme the

[79] See for example: Sumner, W.L. (1956) The organs of St John's College, Cambridge. *The Organ* July Vol. XXXVI no.141 p34; Betteridge, L. (1956) The organ in St Michael's Church, Croydon. *The Organ* July Vol. XXXVI no.141 p40; Sumner, W.L. (1958) The organs of the University of Nottingham *The Organ* April Vol. XXXVII no.148 p164; Green, R. (1959) The Hill organs in Edgbaston Parish Church. *The Organ* January Vol. XXXVIII no.151 p150; Elvin, L. (1967) The organs of Ripon Cathedral. *The Organ* April Vol. XLVI no.184 p145

[80] Reynolds, G. (1960) The organ in St Bride's Church, Fleet Street *The Organ* April Vol. XXXIX no.156 p181

[81] John Norman's example of a typical rebuild of 1957

Great:	Swell:	Choir:	Pedal:
16' Contra Geigen	16' Lieblich Bourdon	8' Chimney Flute	32' Resultant Bass
8' Open Diapason I	8' Violin Diapason	4' Octav (sic!)	16' Open Wood Bass
8' Open Diapason II	8' Wald Flute	4' Gemshorn	16' Geigen Bass
8' Stopped Diapason	8' Salicional	2⅔' Nasat	16' Sub Bass
4' Octave	8' Voix Celeste	2' Blockflöte	16' Lieblich Bourdon
4' Spitz Flute	4' Geigen Principal	1' Tierce	8' Octave Wood
2⅔' Twelfth	4' Rohr flute	1⅓' Larigot	8' Geigen Principal
2' Fifteenth	2' Fifteenth	1' Sifflöte	8' Bass Flute
II Quartane	III Quint Mixture	8' Krummhorn	4' Choral Flute
8' Harmonic trumpet	16' Contra Fagotto	8' State Trumpet	2' Twenty Second
	8' Trumpet		16' Trombone
	8' Oboe		16' Fagotto
			8' Trumpet
			4' Clarion

Swell division is very traditional but the Choir division has just one 8ft. flue (a flute), a generous supply of mutations, along with a Principal 4ft. rank spelt 'Octav', the spelling reinforcing the message that this was an 'authentic' stop. This challenge of trying to please opposing viewpoints is encountered frequently in the latter part of the period 1945-1970, as can be seen in the significant rebuild of the organ of the Royal College of Organists in 1967.[82] The consultants/designers of this instrument were Harold Darke[83] and Peter Hurford[84] and this was an unusual pairing, representing the traditional school (Darke) and the progressive school (Hurford). Stanley Sadie makes a telling remark about the difficulty of designing and building such an instrument:

> For the task set them was, when you come to think about it, an almost impossible one: to design an instrument to satisfy the requirements of both 'traditionalists' and 'progressives', all within 37 stops; to make it a flexible recital instrument although primarily to be used for examining, teaching, and practising.[85]

1.2.5 Reflections on the Organ Reform Movement in Britain

Personal opinions about organ tonal design, as with opinions in all areas of music, continuously change over time, but from today's perspective it would appear that in the 1960s and 1970s musical judgement was particularly variable in its focus, with major

[82] The Royal College of Organists	
Norman & Beard 1904/ Harrisons 1931	HNB 1967
Gt: 16 8 8 8 4 4 2 8 Sw: 16 8 8 8 8 4 2 III 16 8 8 Ch: 8 8 8 4 2 8 8 Pedal: 16 16 16 16 8 8 5 pistons and composition pedals to great, five to swell, four to choir. Balanced and lever swell pedals.	Gt: 16 8 8 4 4 2 IV 8 Sw: 8 8 8 4 4 2⅔ 2 1⅗ III/IV 16 8 8 Ch: 8 8 4 2 1⅓ II (sesq) IV 8 Pedal: 16 16 16 8 8 4 III 16 4 5 pistons each division plus 5 generals, all on instant adjustable system. Balanced swell pedals.

[83] Harold Darke (1888-1976) Professor at the RCM. Organist of St Michael's Cornhill.
[84] Peter Hurford (b.1930). Noted recitalist. Organist of St Alban's Abbey.
[85] Sadie, S. (1967) The New RCO Organ *The Musical Times*, November Vol. 108, No. 1497. pp1038-1039

changes often made to the characters of British organs, in the name of progress, but without necessarily fully considering the musical implications. Both in the period itself and in more recent times there has been awareness that the alterations made to British traditional organs, specifically adding 'Baroque' registers, were not necessarily artistically sound.

Not all organ builders at the time were in favour of rebuilding. Maurice Forsyth-Grant, a leading personality of the Organ Reform Movement (ORM) and frequently forthright in his views, considered the average old organ (i.e. instruments from c.1850 to c.1914) to be 'musically …. worthless' and castigated those builders who attempted to rebuild these instruments. He was particularly scathing about builders in the London area where 'organs have been pieced together to make so-called new instruments.'[86]

Forsyth-Grant's view was that, in most cases, it was better to discard an old instrument and build a new one from scratch, in order to achieve a sense of musical unity, a strong view that quite possibly would be viewed nowadays with some concern by those dedicated to preserving historic instruments, such as the British Institute of Organ Studies (BIOS). What Forsyth-Grant appeared to be overlooking, or perhaps did not wish to admit, was that there often had to be a compromise when dealing with a failing organ. There were financial challenges, due to the often prohibitive cost of building an organ from scratch, especially in the difficult years of post-war Britain,[87] there was (and still is) the emotional attachment that church authorities have for an organ, with its sense of historical continuity, along with the feeling that better value for

[86] Forsyth-Grant, M. (1966) The rebuilding of organs…is it really worthwhile? *The Organ* April Vol. XLV no.180 pp184-188

[87] Elvin (1977) op.cit. In Chapter VI Elvin writes about the immediate post-war period and the many difficulties for organ builders: finding workers (the more skilled workmen could find more lucrative work elsewhere), shortage of essential materials and the exorbitant price of tin, not to mention purchase tax.

money would be achieved by revoicing/adding/subtracting stops, whilst keeping the instrument's outward appearance.

Writers in the 1950s were already expressing reservation about the move towards neo-classicism:

> Many players (and some builders) fondly imagine that, if a Nazard 2⅔' and a Tierce 1⅗' are made available on the Choir Organ, they will produce the effect of a Baroque organ but this is not so.[88]

and:

> One of the unfortunate twists which the Baroque movement has taken in this country is the belief that the addition (or substitution) of Nazard, Tierce and Blockflöte (with various spellings) will turn a modern Choir Organ into a Positive, Positiv or Positif.[89]

In more recent times, when considering the trends in British organ design in the 1960s and 1970s, this concern is even more prevalent. An editorial in the journal of *The British Institute of Organ Studies* (BIOS) notes that when the typical parish organ of the 1930s was rebuilt in the 1960s more often than not there was a poor attempt to impose on the instrument a 'Baroque' voice.[90] David Wickens expands upon this, saying that:

> The idea of converting one style of organ into another is fundamentally flawed since it ignores the inter-relationship of all the parts of an instrument. It is unrealistic to expect a successful outcome where one style of organ-building is crudely imposed upon another.[91]

Wickens gives an example of a typical situation, the moderately sized three manual H&H organ in St Helen's Abingdon, originally built in 1928 and radically rebuilt 43 years later in 1971. The advisor in 1971 for this rebuild was Dr David Lumsden,

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[88] Whitworth, R. (1951) *Organ Stops and their uses* London: Pitman & Sons Ltd. (reprinted 1962) p108
[89] Newman, A.M. (1958) Letters to the Editor. *The Organ* October Vol. XXXVIII no.150 p108
[90] Clark**,** R. (1994) Introduction *BIOS Journal 18* p4
[91] Wickens, D. (1999) The organ in St Helen's, Abingdon: twentieth-century events. *BIOS Journal 23* pp23-28

Organist of New College Oxford, which had a radical new organ by Grant, Degens and Bradbeer (GDB) installed in 1969 (see chapter 4). His advice for the organ of St Helen's Abingdon was that 'the organ needs very substantial tonal revision if it is to be attractive to musicians now and in the immediate future.'[92] The result, as seen below, was an instrument that lost its true identity, and ultimately did not prove to be as attractive to musicians as Lumsden had envisaged:

The organ of St Helen's Abingdon					
Organ by H&H 1928			**Organ as rebuilt by HNB 1971**		
Pedal	Open Wood	16	**Pedal**	Open Wood	16
	Sub Bass	16		Sub Bass	16
	Octave Wood	8		Octave Wood	8
	Flute	8		Flute	8
Choir	Double Salicional	16	**Choir**	Chimney Flute	8
	Open Diapason	8		Nason	4
	Stopped Diapason	8		Principal	2
	Nason	4		Larigot	1⅓
Great	Bourdon	16	**Great**	Bourdon	16
	Open Diapason	8		Open Diapason	8
	Geigen	8		Stop'd Diapason	8
	Claribel Flute	8		Octave	4
	Octave	4		Twelfth	2⅔
	Octave Quint	2⅔		Fifteenth	2
	Super Octave	2		Furniture	III
	Sesquialtera	III			
			Swell	Salicional	8
Swell	Harmonic Flute	8		Block Flute	8
	Viola da Gamba	8		Principal	4
	Voix Célestes	8		Quarte	2
	Gemshorn	4		Sesquialtera	II
	Mixture	III		Mixture	III
	Double Clarinet	16		Trumpet	8
	Trumpet	8		Clarion	4
	Oboe	8			
	Clarion	4			

[92] Ibid.

It was not just the addition of high pitched mixtures and mutations that changed the character of these traditional organs. Some stops were regarded by the advocates of Classicism as musically suspect and one of the first stops to be discarded in such rebuilds was often the Great Large Open Diapason. When Bonavia-Hunt discussed a 'typical' three-manual English scheme[93] he observed that the Great Open Diapason No1 'could be fitted into the chorus, if so, but is not essential to it'[94] and he appears to be sitting on the fence, not fully convinced by such stops and yet not wanting to damn them. Talking about the Large Open Diapason in the organ of St Helen's, Abingdon, Wickens stated that 'such a register remains of questionable musical value.'[95] A similar view about large Open Diapasons in general was expressed by Downes, asking 'were they not too blanket-like, too enormous to be really musical?'[96]

David Knight's survey of the organ in Westminster Abbey in the twentieth century notes that in the 1980s the largest Open Diapason on the Great was removed (although no radical changes to the original 1936 voicing were made) and Knight asks 'did its removal affect registration practice?'[97] These immense Open Diapasons were very expensive to manufacture and the fact that such stops were included in many of the organs built in the early years of the twentieth century indicates that they were perceived as having real importance in the tonal schemes of the time. What can be

[93] From Bonavia-Hunt (1947) op.cit. p111. A 'typical' 3 manual English scheme

Gt: 16 8(I) 8(II) 8 8 4 2⅔ 2 2 IV (19,22,26,29) 8
Sw: 8 8 8 8 4 4 V (12,15,17,19,22) 16 8 8 4
Ch: (enclos) 16 8 8 8 4 4 2 IV (8,12,15,17) 8 (gt) 8
OR
Pos: 16 8 4 4 2⅔ 2 2 III (17,19,22) III (26,29,33) 16 8 8 (Gt) (Bonavia-Hunt refers to this as being 'frankly Baroque')
Pedal: 16 16 16 16 8 8 4 16 8 4 (last 3 Swell) 16 8 (last 2 Great) harmonics (12,15,17,19,b21,22)

[94] Bonavia-Hunt, Noel. (1947) *The Modern British Organ* London: Weekes & Co. p111
[95] Wickens (1999) op.cit.
[96] Downes (1983) op.cit.p23
[97] Knight, D. (1999) The Westminster Abbey organ in the twentieth century *BIOS Journal 23* p82

overlooked is that the organ is used for much of the times in churches in an accompanying role and it is possible that the true worth of these large Open Diapasons is more to do with congregational singing, rather than for the performance of solo literature.

In more recent times there has been a growing awareness of the uneven and, arguably, insensitive approach to the rebuilding of organs in the period c. 1945-c.1970 and some of those involved or connected are beginning to acknowledge that the results were not fully successful. Writing in 1999 John Norman proudly stated that his firm (Hill, Norman and Beard) was in the forefront of the so-called Baroque Revival, citing examples from the 1950s in which experiments were made in the voicing of pipes that were considered to be very radical;[98] however, Norman follows on from this by conceding that many of these early voicing attempts were uninformed, particularly when complete Positive divisions were added on to essentially Victorian or Edwardian organs, with little regard for tonal cohesion.

Similarly, in 1999 Mark Venning (the director of the distinguished organ builders Harrison and Harrison) made it clear that market forces forced decisions upon his firm which were not always appropriate:

> As the Royal Festival Hall influence spread, Victorian and Edwardian organs began to seem old-fashioned: soon, organists and consultants were demanding additions ... to bring them into line with the new style... H&H could scarcely avoid responding to such pressures. Today some of the musical results appear uneven at best, with the inevitably awkward compromise between old and new. These schemes have to be seen as a sincere, though misguided, attempt to make such organs relevant to the modern world.[99]

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[98] Norman, J. (1999) The influence of the Baroque Revival on the work of Hill, Norman & Beard, 1950-1974 *BIOS Journal 23* p38

[99] Venning, M. (1999) Harrison's great adventure *BIOS Journal 23* p140

This statement by Venning can be interpreted as a carefully worded apology for the artistic damage caused by Harrisons to many organs in this period, though of course many, if not the majority, of builders in this period were working in similar ways. It is, however, Venning's final phrase that is of particular interest, referring to the attempt *to make such organs relevant to the modern world*. What was it about these traditional organs that, in the eyes of many builders, organists and consultants, did not make them relevant to the modern world? Was it the instruments' tonal schemes, their key actions, their cases or, maybe, just their very existence? In the 1960s and 1970s the dismissal of artefacts from the Victorian period was not a trend exclusive to the world of the pipe organ; many Victorian buildings were torn down in the name of progress and so it should not seem surprising in this period of British history that Victorian organs were viewed with little enthusiasm or regard.

The driving force behind the upheaval in the British organ world in the 1960s/1970s was the desire to experience 'authentic' organs and to present organ music in an authentic manner, with, it appears, little or no regard to the tastes or wishes of those who were in many ways a captive audience i.e. church congregations. It is ironic that the 'modern' world of the British organ in the 1960s and 1970s was, in fact, looking back to the past for inspiration, building instruments that were not actually modern but rather were derived from what was perceived as the golden age of organ building i.e. the period from c.1600 to c.1800, with a particular focus on organ builders from Germany and the Netherlands. This backward looking is all part of the growth of interest in 'authenticity' and this is now considered in the final section.

1.3 Authenticity

Writing in 1988 Kenyon observed that

> No change has more profoundly influenced the development of our music-making during the last two decades than the growth of the historical performance movement.[100]

Marshall, in her reflection on research into historical performance practices of the organ, notes that

> concern with recreating the original conditions of musical performance is a relatively recent phenomenon with many potential dangers.[101]

'Dangers' might seem at first too strong a word to be using in this context but in the 1960s and 1970s there were key personalities in the organ world who demonstrated an obsessive attitude towards authenticity. In 1985 Crutchfield talked about the fact that 'authenticity has lately taken on the appearance of a battlefield.'[102]

In the British organ world the 'battle' between the traditionalists and the classicists probably started in 1954 with the opening of the organ in the Royal Festival Hall, and this carried on for a number of years, although in recent times an uneasy truce between the two factions appears to be have been agreed.

The desire to achieve authenticity in musical performance would appear to be clearly honourable and well-meant but there are those who question its true validity. Taruskin, for one, states that using the word 'authenticity' in connection with the performance of music is 'neither description nor critique, but commercial propaganda,

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[100] Kenyon, N. (1988) Introduction *Authenticity and Early Music* ed. Kenyon. Oxford: Oxford University Press. p1
[101] Marshall, K. (1998) 'A survey of historical performance practices', *The Cambridge Companion to the Organ* ed. Thistlethwaite and Webber. Cambridge: Cambridge University Press
[102] Quoted in Taruskin *op.cit.* p139

the stock-in-trade of press agents and promoters.'[103] The word 'authentic' itself is seen by some as being emotionally charged, with Kerman suggesting that ''authentic' is a baleful term……(it) resonates with unearned good vibrations.'[104]

Whether or not the leading lights in the ORM in the 1960s and 1970s felt superior in their wish to be 'authentic' cannot be ascertained but Taruskin[105] has noted that we cannot be rid of the moral and ethical overtones associated with 'authenticity', with the possibility of performers feeling guilty if they do not strive for authenticity.

It is not just the research into the past that can lead to feelings of performance superiority. Care is needed about putting too much emphasis on the value of original instruments of any period. Marshall shows concern about this, as does Taruskin, who feels that original instruments can have a 'magical aura' and that 'those who use them can claim *ipso facto* to be better curators than those who do not.'[106] It can be argued, however, that the organ, being the least standardised of all instruments, is the most difficult to pin down to being 'original' due to the fact that many, if not most, organs have been changed and altered over time due to necessary remedial work on their complex mechanisms. Is it, in fact, so crucial to be playing an original organ? Is it better that the organ in question has its idiosyncrasies, its limitations, its challenges, making the player work more creatively in his/her attempt to produce a musical and coherent performance? Or, are there certain compositions from specific times/areas/cultures that must have specific organs in order for them to be convincing?

[103] Ibid. p137
[104] Ibid. p139
[105] Ibid. p137
[106] Ibid. p205

Awareness of the need to restore original instruments, based on the requisite historical knowledge and with due sensitivity, is a relatively recent phenomenon but again, as with the playing upon 'original' instruments, there is a danger of those in the present day of feeling superior to those pioneers of restoration in the 1960s and 1970s; nevertheless, it must be acknowledged that there are now a significant number of organ firms renowned for their meticulous and informed approach to restoration work on organs from the past (see, *inter alia*, work by the firms of William Drake,[107] Goetze and Gwynn[108] and Mander[109]).

1.3.1 Performance

No matter how much a player can try it is impossible to be truly 'authentic', because players are not mechanical reproducing machines. Crutchfield might sound too blunt in his phrase '*inevitably imperfect approximation'* but he is simply being honest when he states that:

> Late 20th century musicological thought…is that a musical performance is an inevitably imperfect approximation of a fixed, though unknowable, ideal embodied in the score (or lying behind it in the composer's thought).[110]

This is acknowledging that in any performance, in varying degrees, a player always has to interpret a piece of music to make it come alive. Taruskin suggests that '.. any tempo presupposes choice of tempo, any volume choice of volume, and choice is

[107] https://www.williamdrake.co.uk/
[108] http://www.goetzegwynn.co.uk/
[109] http://www.mander-organs.com/
[110] Crutchfield, W. (1988) 'Fashion, Conviction, and Performance Style in an Age of Revivals' *Authenticity and Early Music* ed. Kenyon. Oxford: Oxford University Press p24

interpretation.'[111] Ferruccio Busoni[112], the Italian composer and pianist, pointed out the limitations of all notation systems, saying that

> any notation of music is a transcription of an originally abstract sonic idea, and every performance of this inevitably inexact notation is, like it or not, a further transcription.[113]

For Busoni there was further puzzlement about any attempts to remove the personality of the interpreter. Busoni was known for taking extraordinary liberties with the printed score[114] and he would have surely agreed with the view of Crutchfield that

> one of the unthought-of things the great composers assumed, wanted and needed was the conviction and passion of great performers.[115]

Great performers on the organ, such as Simon Preston, undoubtedly play with the requisite conviction and passion that brings a composition to life but how much of the success of that first performance of Leighton's *Paean* was due to the RFH organ, an organ which would appear to be perfectly matched with Leighton's musical language? Taruskin again has views on first performances:

> …the early enunciation of principles that have become articles of faith in our age of authentistic performance: to wit, that the first performance of a work possesses a privileged authority, and that the composer's wishes are to be gauged in material rather than spiritual terms, to be measured, that is, in terms of sound, not 'effect', precisely because sound, not effect, is measurable.[116]

It is true that the first performance of any organ piece is truly unique since the organ used will bring its own special character to the interpretation, due to a multitude of

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[111] Taruskin *op.cit.* p205
[112] Ferruccio Busoni (1866-1924).An outstanding virtuoso pianist, though he was seen by many as rather a controversial figure. His writings on music were influential.
[113] Busoni quoted in: Hamilton, K. (2008) *After the Golden Age* Oxford: Oxford University Press p187
[114] Ibid.p181
[115] Crutchfield *op.cit.* p25
[116] Taruskin *op.cit.* p182

factors, including its tonal design, the number of manuals and stops, console equipment and the acoustic of the building in which the organ is situated. Clearly in most organ performances it is not possible to replicate the circumstances of the first performance but even if it were possible Taruskin argues that 'to presume that the use of historical instruments guarantees a historical result is simply preposterous.'[117] The key word here is '*guarantees'* since absolute guarantees in music performance are not realistic. However, the research in this thesis aims to show that by acquiring informed knowledge of British organs of the period 1945-1970, organs which from the viewpoint of the early twenty-first century can justifiably be termed 'historic' instruments, a player can at least presume to be able to deliver an informed performance.

1.4 Summary

A substantial corpus of organ music was written in the period 1945-1970 (see Appendix 17), some of which is still in the standard repertoire of today's players, both professionals and amateurs. Whilst there are comprehensive books and articles about many other organ schools and/or composers (see, *inter alia,* Soderlund,[118] Sumner,[119] Owen[120] and Brooks[121]) the literature for the period 1945-1970 in Britain is sparse. It is, therefore, the intention of this thesis to explore the instruments of this period in order to understand the challenges that might confront players of today. This investigation is a practical one and it is not expected that the information garnered will result in an immediate 'authentic' performance of the music, for, as Kenyon reminds us,

[117] Ibid. p204
[118] Soderlund, S. (1986) *Organ technique: An Historical Approach* Chapel Hill NC: Hinshaw Music
[119] Sumner, W. L. (1961a) *Bach's Organ Registration* London: Hinrichsen
[120] Owen, B. (1999) *The Registration of Baroque Organ Music* Indiana: Indiana University Press
[121] Brooks, G. (1998) 'French and Belgian organ music after 1800', *The Cambridge Companion to the Organ* ed. Thistlethwaite and Webber. Cambridge: Cambridge University Press

'.....instruments and treatises are no guarantee of historical faithfulness.'[122] However, the investigation will be designed to encourage players to look afresh at the wide range of British organs in the period 1945-1970, showing 'the value of the old instruments in freeing minds and hands to experience old music newly.'[123]

In chapters 2 and 3 of this thesis the focus will be on mechanical aspects, including key actions, stop control, swell pedals and consoles; chapter 4 will focus on the tonal design of both traditional and neo-classical organs, whilst in chapter 5 case studies of three organ compositions from the period will be presented, with all three compositions featuring in the programme of the associated recital.

[122] Ibid p17
[123] Kenyon, N. (1988) 'Introduction: Some Issues and Questions' *Authenticity and Early Music* ed. Kenyon. Oxford: Oxford University Press p17

2 Mechanical aspects (part 1)

2.1 Introduction

It is generally acknowledged that the organ is the most mechanically complex of all musical instruments.[124] To confidently interpret organ music an organist should ideally possess a full understanding of the instrument's mechanical character; the challenge when approaching repertoire from c.1945-c.1970 is for the present-day organist to understand what are the limits and restrictions of the representative instruments of this period. The challenge is further complicated by the fact that it is rare to find any one particular instrument that has not, in some way or other, been rebuilt or modified, and this is particularly true of the period 1945-1970.

In more recent years there has been a far more sensitive approach to the restoration or rebuilding of organs, with a greater acknowledgment of each instrument's unique qualities, and this is not restricted only to what might be considered 'historic' instruments but also to those from the more recent past. With even straightforward restoration work in the middle of the twentieth century it was unusual for builder and consultant to resist making some changes (tonally and/or mechanically) to the original instruments, with such decisions considered to be a form of improvement to make the playing and listening experience all the better. However, the twenty-first century places greater store on authenticity and thus these former approaches, from today's perspective, might be considered artistically indefensible, but they must be considered in context. In the post-war years the gradual increase in society's wealth, along with many technological advances (especially with electrical and electronic equipment),

[124] See Appendix 1 for an overview of the design of a pipe organ

permitted clients to spend more on organs' accessories that were once perceived as luxuries, such 'luxuries' including detached consoles and adjustable pistons.

The standard literature on the organ does not give too many clues to the performer about the mechanisms of organs in the period 1945-1970. William Sumner[125] gives a broad overview of organs in the post-World War 2 period, but this is predominately a list of the pre-eminent builders and their significant instruments, whilst Peter Williams[126], viewing the period from his perspective in 1980, devotes just over one page to the British Organ Revival and what he does say is mainly rather negative about the achievements of both the builders and the advisors. Stephen Bicknell writes more comprehensively about the period 1939-1980 in his history of the English organ[127] and here the author, as an organ builder himself, is more sympathetic to the many challenges of the period; the British Institute of Organ Studies (BIOS) encourages and promotes the study of the pipe organ, including the history and design of the instrument and its music, and the journals published by the Institute provide very detailed and scholarly articles about many facets of the organ but rarely about mechanical aspects.

The purpose of this chapter and chapter 3 is to therefore gain understanding of the mechanical aspects of the instruments extant in the period c.1945-c.1970, focusing on the following areas:

- Key and pedal action
- Pistons
- Couplers
- Swell boxes

[125] Sumner (1973) op.cit.pp243-247
[126] Williams (1980) op.cit.pp204-205
[127] Bicknell (1996) op.cit.pp326-351

- Console design
- Extension system

2.2 Key and pedal action - introduction

The term ‘action’ is the accepted collective term in organ parlance for the means of connecting the keyboard and pedalboard to the mechanism that allows air into the pipes. Uniquely in the world of instruments there are various different mechanisms available on the organ; the consideration of them forms an important part of performance practice research, with both the speed of response and the speed of repetition affecting the way a player approaches music of the period. There are three principal actions to be found, although there are variations to be found within each one, along with hybrid designs:

- Mechanical
- Pneumatic
- Electric

2.2.1 Mechanical Action

From the very first organs up to those built in the first few decades of the nineteenth century there was only one type of key action, known as either mechanical or tracker (the two terms are easily and commonly interchangeable). Mechanical action is, in essence, very simple, with a direct mechanical connection between the keyboard (and pedalboard) and the soundboard, with the speed of operation instantaneous, and if well-constructed it is hard-wearing and reliable.

For the majority of organists and builders in the post-war period mechanical action was perceived as being the least desirable form of key action, not only due to the issue

of cost[128] but also to the plain fact that there were many examples of poorly designed instruments, where the mechanical action was seen to be a real hindrance to musical playing. Further, when it came to the issue of console design, mechanical action in most cases precluded the possibility of acquiring a detached console which, for some organists, was considered to be highly desirable. There are sound musical reasons for having a detached console, including being able with more ease to balance the instrument with singers and/or a congregation, but more often than not the principal non-musical reason is that a detached console is perceived by some as a status symbol. Kingsgate Davidson rebuilt the organ at St James's West Hartlepool in 1946 and Dixon noted that the original tracker action was only retained due to lack of funds, giving the impression that he was disappointed by this decision.[129] He did, however, have the grace to admit that with limited funds there was a sound argument for investing in pipes rather than in electric action.

The action for smaller instruments would commonly be built as *suspended* mechanical action, with the touch often very light due to the inherent simplicity of the design, allowing the player to easily articulate and not become tired as can be the case with a heavier action:

[128] Conversation with Matthew Copley (organ builder) 12.9.09: 'It is much harder, and hence more time-consuming and expensive, to make mechanical actions, as opposed to pneumatic actions, due to the precision needed for lining up all of the mechanisms inside the organ.'
[129] Dixon, G. (1947) The organ in S James's, West Hartlepool. *The Organ* January Vol. XXVI no.103 p155

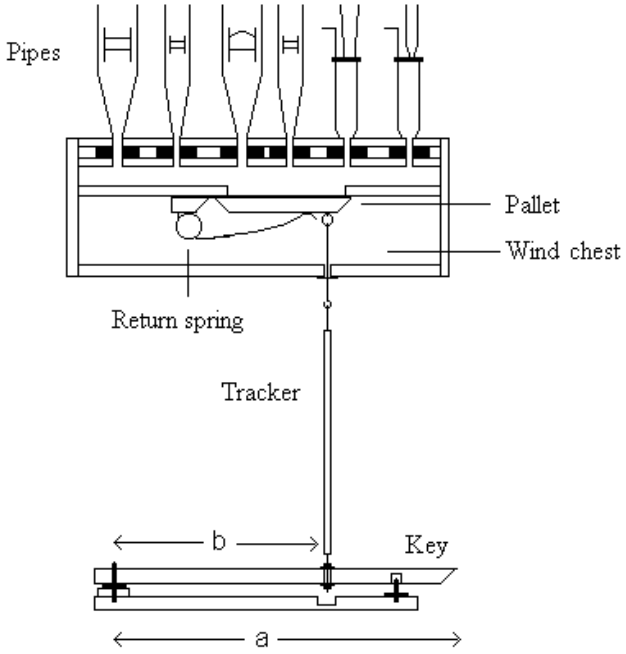

Illustration 2:1: Suspended action[130]

With larger instruments the chest, with its pipes, often needed to be positioned a distance away from the keyboards/pedalboard, and this resulted in the introduction of the action known as *backfall*, which as can be seen involves greater complexity and more moving parts:

[130] http://www.pykett.org.uk/the_physics_of_organ_actions.htm#Suspended%20Actions accessed 5.11.11

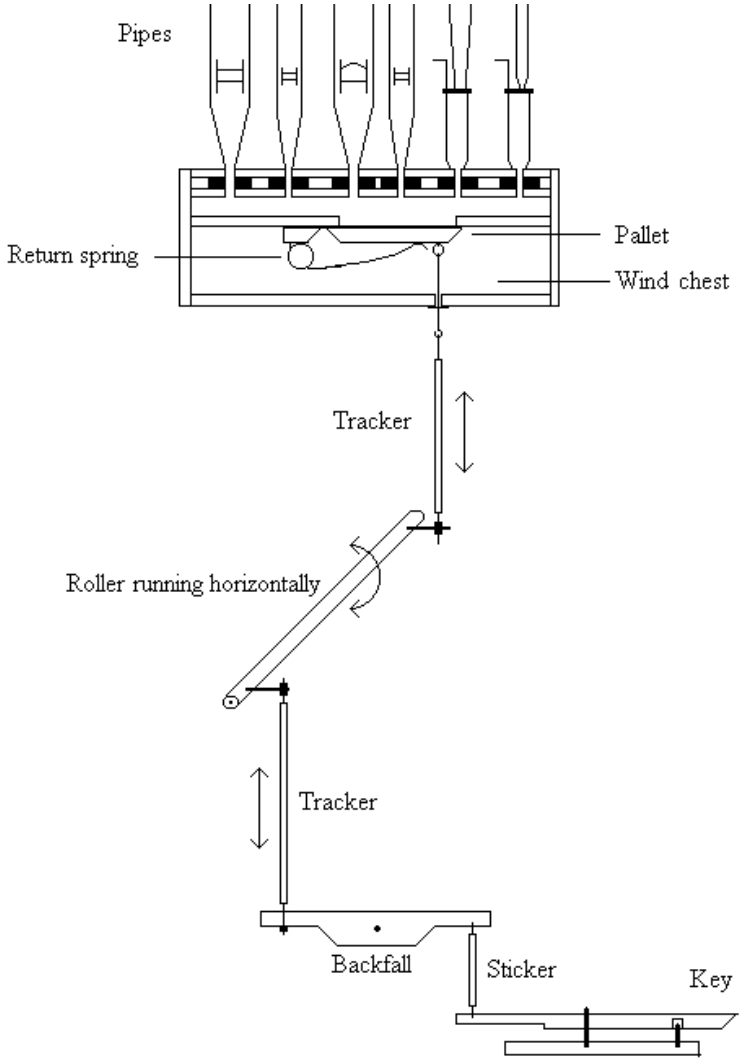

Illustration 2:2: Backfall action[131]

A considerable number of instruments in the period 1945-1970 were converted from their original mechanical action to either pneumatic or electric actions; however, many other older instruments, particularly smaller organs, retained their mechanical actions in this period when lack of funds prohibited any such work being undertaken.

The positive attributes of mechanical action include:

- Sensitivity of touch

[131] http://www.pykett.org.uk/the_physics_of_organ_actions.htm#Summary%20-%20backfall%%&&20actions accessed 5.11.11

- Control over the speed of the pallets opening, allowing subtle articulation differences (though this argument can lose its validity when considering large instruments, due to the size of the windchest and pallets where the touch can become less sensitive.)
- A feeling of connection with the instrument
- Allowing the cultivation of a cleaner playing style, insofar as the precision of the action can easily reveal any technical deficiencies
- General reliability due to the inherent simplicity of mechanical action

These are clear positive attributes but they are only true when considering a fine, well-regulated instrument. Unfortunately, for many older instruments with mechanical action in the period 1945-1970 the term 'fine' cannot be applied to the mechanical action, and the problems that arise for the player are most commonly due to a heavy touch. The causes of heavy touch include:

- High wind pressures, making the pallets harder to open[132]
- Poor design of key action[133]
- A long run from the console to the windchest, with a complicated linkage system
- Coupling of the manuals together[134]

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[132] Norman, J. (2006) Do couplers matter? *Organists' Review* Vol.XCII February. On p36 Norman quotes the writing of Dr Camidge who stated, in 1833, that the effort required to play at York Minster, where higher than normal wind pressures had been employed, was 'enough to paralyse most men.'

[133] http://www.pykett.org.uk/the_physics_of_organ_actions.htm Accessed 5.11.11 Pykett comments that 'Many of these instruments were built with superb craftsmanship but to an uninspired, even clumsy, mechanical design. Thus many of them lasted a long time and are still with us, but they continue to frustrate many an organist'.

[134] Conversation with Matthew Copley (organ builder). September 2010. 'Actions can fall out of adjustment, particularly with coupling mechanisms, and at times people unfairly judge the quality of the workmanship'.

Additionally, mechanical actions are susceptible to changing climatic conditions (e.g. the effect of humidity on wooden materials) and it is only comparatively recently that modern techniques and approaches have successfully dealt with such problems.

Mechanical action gradually fell out of favour in Great Britain in the late nineteenth/early twentieth centuries and by 1945 it was the least popular action to be used in new and rebuilt organs. Economics come into the equation, it being much easier and cheaper to design an organ without mechanical action due to the very fine precision needed to construct a complete instrument – it is simpler for the organ builder to place the various divisions of the organ wherever it suits, relying upon pneumatic or electric action to connect up the instrument.

By the beginning of the period 1945 to 1970 a vicious circle had unwittingly been constructed – fewer builders were utilising mechanical action, with therefore the skills for designing and constructing mechanical actions becoming less honed, and the instruments that were being built were not always of the highest quality, resulting in players tending to shy away from them, preferring instead assisted actions such as pneumatic or electric. A poor mechanical-action instrument can make for an unpleasant musical experience, in which any type of sensitivity to the nuances in the music being performed is removed.

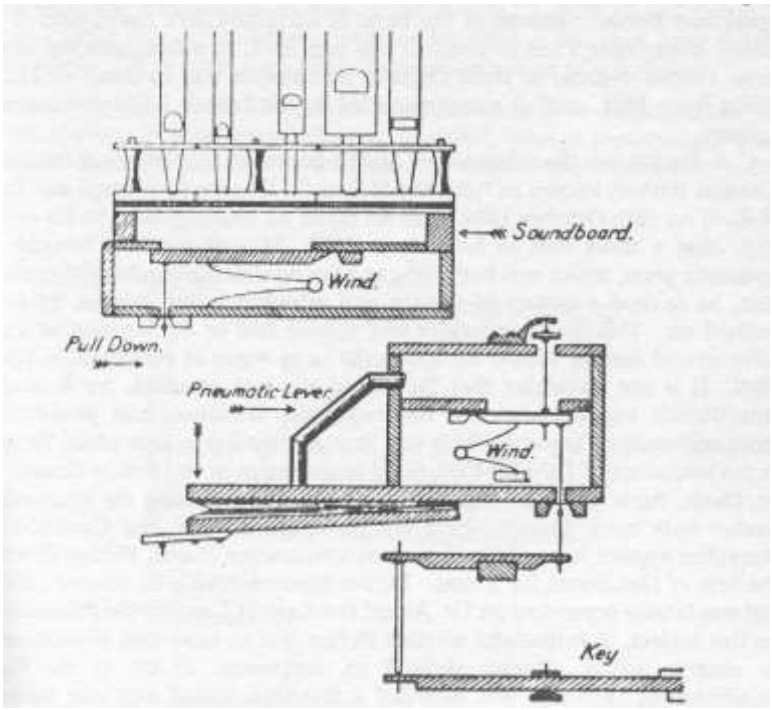
2.2.2 Pneumatic

Authorities differ in their dating of the invention of pneumatic assistance in pipe organs but certainly by the middle of the nineteenth century the first pneumatic key actions were being manufactured. Sumner notes that in the late 1820s experiments with pneumatic action had begun and that by 1835 the first complete pneumatic action was

being used.[135] The development of such actions was brought about to alleviate the problems caused by ever increasing unwieldy and heavy mechanical actions, such key actions creating a barrier between the players and their musical intentions. It is perhaps ironic that these pneumatic key actions, very much a product of the nineteenth century (an age of extraordinary invention), inadvertently created other musical barriers which, it could be argued, did a disservice to the reputation of organists. A number of variants of pneumatic action can be found in organs of the period 1945 to 1970 and these will be considered.

All forms of pneumatic on organs are united by one guiding principle: instead of a direct linkage from the key to the pallet there is some form of pneumatic assistance to open the pallet, resulting in a uniform and light touch to the keys.

The earliest form of pneumatic action is the Barker lever system:



[135] Sumner (1973) op.cit.p337

Illustration 2:3: Barker lever action[136]

The player no longer has a direct mechanical contact with the pallet that lets air into the windchest but, nevertheless, there is some sense of connection with the instrument due to the pluck encountered when pulling down the small pallet in the touch box. Furthermore, there is, to a certain degree, some control over the speed of the opening of the soundboard's pallets, although it cannot be claimed that the sensitivity is on a par with that of mechanical action.

There is a variant of the Barker lever system, known variously as the Barker floating lever system or as the Willis floating lever system:

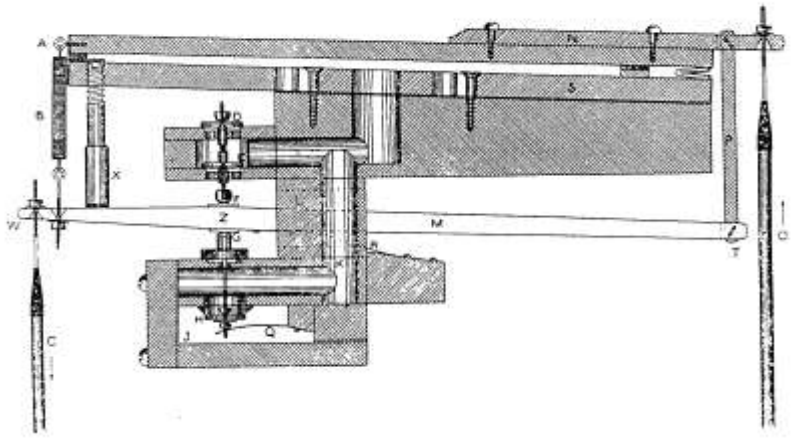


Illustration 2:4: Willis floating lever system[137]

As the diagram shows, there is a clear physical connection from the keyboard (pulling down rod C on the left) to the main pallet (operated by rod O on the right), but with the benefit of pneumatic assistance to reduce the weight of the touch – however,

[136] Ibid. p337
[137] http://www.willis-organs.com/picts/floating.jpg accessed 20.10.10

this type of system was both expensive and complex to build and there are very few extant examples to be found nowadays.[138]

The next stage in the development of pneumatic assisted key action was the tubular-pneumatic system, which saw the complete distancing of the keyboard from the soundboard's pallets:

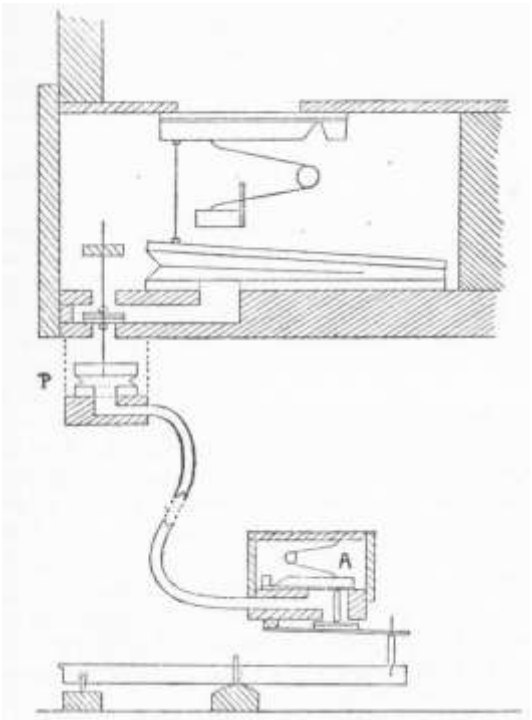


Illustration 2:5: Tubular-pneumatic action[139]

Various major organ builders are associated with this mechanism in its early days, including Cavaillé-Coll in France and Willis in England, with the system patented in 1845 by Prosper-Antoine Moitessier of Montpellier, France.[140] There are variants in the design, with some worked by the pressure system (wind is sent from the touch box to the main pneumatic motor) and others by the exhaust system (wind pressure is already

[138] One fine example can be found at Holy Trinity Church, West Hill, Wandsworth, London. Built originally in 1889 by Willis it was sympathetically restored in 2014 by Organ Design Ltd.
[139] Sumner (1973) op.cit.p339
[140] Miller, G.L. (1909) *The recent revolution in organ building; being an account of modern developments* New York: The Charles Francis press. p25

in the tubing connecting the touch box to the main pneumatic and the movement of the key allows this air to be released, or exhausted, resulting in the movement of the pneumatic motor), but all have the same underlying principle of operation.

From the middle of the twentieth century onwards the popularity of pneumatic action rapidly declined but for many organists in the late nineteenth and early twentieth centuries this form of key action was seen to possess clear benefits:

- There was a light touch to the keyboard, allowing the player to play for a long time without the fingers and hands becoming tired and/or strained by a weighty touch
- The use of couplers no longer changed the weight of the touch
- A greater range of couplers could be used, including octave, sub-octave and unisons off, allowing greater creativity in registration
- There was no restriction on the size of each department's soundboards and consequently no restriction as to the number of stops that could be included in an instrument
- The inclusion of high pressure stops became viable, permitting the addition of new tonal designs
- The console did not have to be positioned close to the soundboards in the same way that mechanical actions dictated. By having the console at some distance from the pipes it was possible for the player to hear the instrument in better balance, particularly so with larger instruments.
- The organ builder had more flexibility when it came to designing an instrument, allowing considerable freedom in positioning the various divisions of the organ. This was particularly pertinent when builders had to fit organs into difficult and

cramped spaces such as chancels – such locations were used more and more frequently due to the influence of the Oxford Movement:[141]

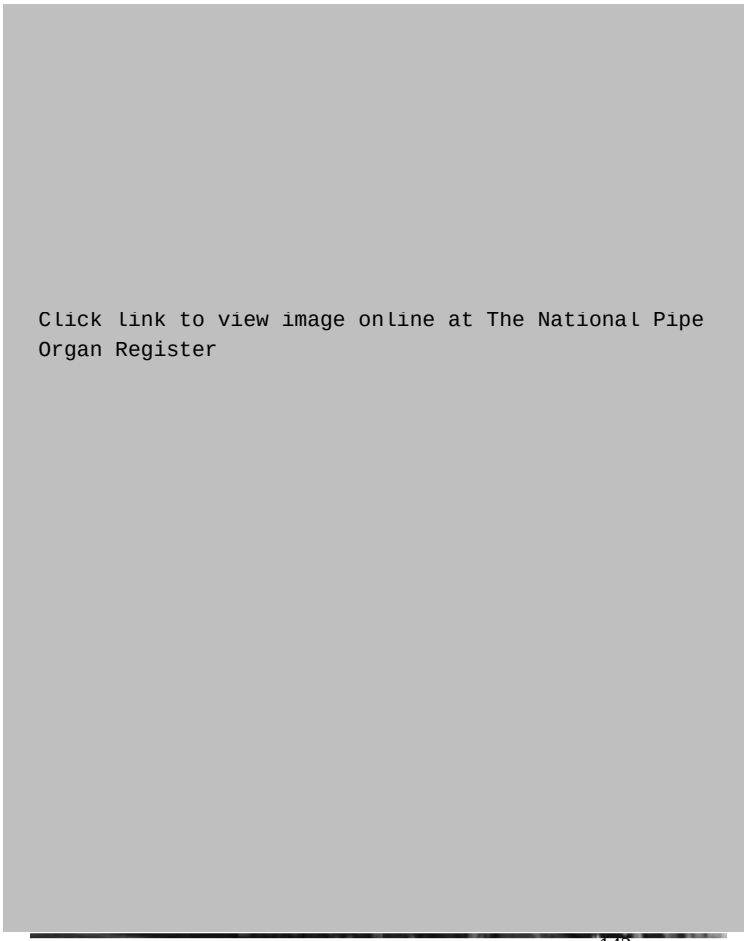


Illustration 2:6: St John, Stamford[142]
Example of an organ located in a chancel

Whilst it would be unusual for an organ builder in the twenty-first century to construct a new organ with pneumatic action there has been a noticeable shift in attitudes toward pneumatic actions, indebted to ever increasing historical awareness, with players, consultants and builders advocating the restoration of key instruments and retaining their pneumatic action. In the past most rebuilds of organs with pneumatic

[141] The Oxford Movement has its origins in the 1830s and is considered to be the Catholic revival of the Church of England. For organ building the most significant aspect of the movement was the introduction of surpliced choirs into the chancel area of churches and consequently the need for organs to be similarly accommodated in often restricted and unsuitable spaces.
[142] http://www.npor.org.uk/NPORView.html?RI=N05490 accessed 6.10.10

action would have seen the original mechanisms replaced by some form of electric action but in more recent times major restorations of pneumatic instruments have faithfully kept the original mechanisms, though inevitably increasing the restoration costs. Notable organ include those in the Kelvingrove Art Gallery Glasgow, Bristol Cathedral, Eton College Chapel, Sacred Heart Church Wimbledon and Caird Hall. The latter instrument was faithfully restored by Harrisons in 1992, including its exhaust-pneumatic action, although a new piston system was introduced. Robert Lightband reviewed this organ after its restoration and noted that

> There is a distinct feel about a first-class pneumatic action….(that) encourages the player to use the organ in a way quite different from either an electro-pneumatic or mechanical instrument.[143]

Lightband does not expand upon the different way a player might use an organ with such action but there are a number of negative aspects to pneumatic action, including:

- There is a lack of connection with the pipes, with an absence of control of attack which is normally present in mechanical action organs.
- Pneumatic actions can have a sluggish response, with the speed of movement of the pallets restricting the repetition, and this can make for a very unmusical performance, with little or no way of controlling the instrument sensitively. Time lags are not uncommon with such actions and this further prevents the player fully connecting with the music. This becomes more prevalent as the distance between the console and the pipework is increased, and in those organs where the divisions are located at various distances from the console this slow response causes a

[143] Lightband, R. (1993) Caird Hall Harrison *The Organists' Review* Vol. LXXIX November p301

difference in speech between the divisions.[144] As with all such innovations opinion was often divided: Sir John Stainer (organist of St Paul's Cathedral, London 1872-1888) called it (i.e. pneumatic action) a 'triumph of mechanical skill', but W.T. Best[145] (one of the most outstanding British concert organists of the nineteenth century) considered pneumatic action

> a complete failure; you cannot play a triplet on the Trumpet, and I consider it the most damnable invention ever placed inside an organ.[146]

- The increased range of couplers available (e.g. octave and sub-octave) could have been partly responsible for ever-increasing poor tonal designs, with builders and players relying on such couplers to add both brilliance and depth to under-nourished specifications.
- With Barker Lever action a considerable amount of adjustment is needed to ensure it works properly, with the action being very susceptible to climate changes and dust. Additionally, Barker Lever can be very noisy in operation, with the clattering of the action disturbing both for the player and the audience.
- Frequently builders used a mix of actions within any one instrument (e.g. mechanical action for a smaller division such as the Choir and pneumatic action for larger divisions on higher wind pressures and, as noted above, if each division of an organ speaks at a different speed this can create challenges for the player.[147]

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[144] The celebrated example of St Paul's Cathedral in 1872 is a case in point. Here, the original seventeenth- century case from the screen was divided into two and placed either side of the chancel, with pneumatic action connecting the console in the north case with the divisions in the south case.
[145] For more on W.T. Best see: W. T. Best: His Life, Character, and Works. Orlando A. Mansfield *The Musical Quarterly* Vol. 4, No. 2 (Apr., 1918), pp. 209-249
[146] Miller (1909) op.cit.p26
[147] Instruments with mixed key actions are still being built in the twenty-first century e.g. the organ in Rugby School chapel is a new instrument, built in 2001, with three of the manuals having purely mechanical action, whilst the fourth manual has electric action.

2.2.3 Electric Action

Hemsley states that the world's first electric action pipe organ was built in 1855 in Paris.[148] What was initially seen as simply a novelty became, within a few decades, a serious rival to pneumatic actions – certainly by the middle of the twentieth century it was the preferred action for new organs and for many rebuilds, until the Classical revival in the post-war years when the musical potential of a good mechanical action gradually changed organists' and builders' perceptions. The term 'electric action' covers a complex range of systems, with many organ builders developing and using their own methods, thus making it unrealistic to cover all variations of these actions in this chapter[149], but the two principal types of systems are outlined, along with thoughts on their musical application.

2.2.3.1 Electro-pneumatic action

Electro-pneumatic action is similar in principle to pneumatic action insofar as the main pallet to the windchest is operated by a pneumatic motor – however, the connection to the keyboard is no longer by a pneumatic tube, operating a primary pneumatic motor, but rather by a wire, with a small magnet being responsible for letting the air into the pneumatic motor chamber.

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[148] Hemsley, J. D. C. (2005) *Henry Bryceson (1832-1909) organ-builder and early work in the application of electricity to organ actions*. Cardiff University. Unpublished PhD thesis. p20

[149] For detailed and very technical descriptions of a wide range of electric actions see: Whitworth, R. (1948) *The Electric Organ* 3rd edition London:Musical Opinion

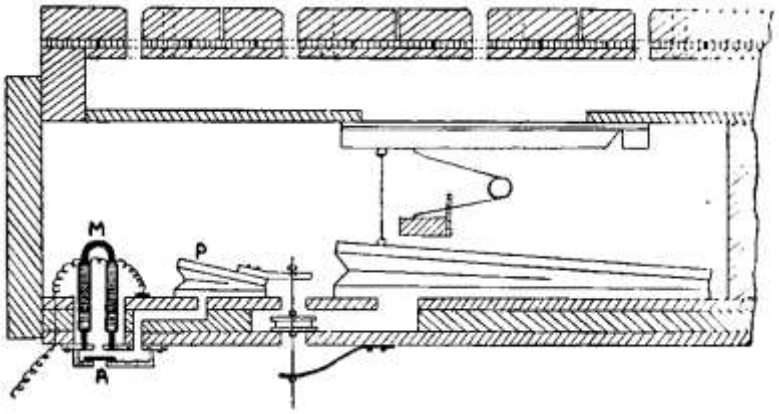

Illustration 2:7: Electro-pneumatic action[150]

Whilst an expensive and quite complex mechanism to build this has proved to be generally reliable and popular, particularly since organ builders rebuilding pneumatic action could simply remove the considerable amount of tubing connecting the console to the windchest and replace this component with electric action.

2.2.3.2 Direct electric action

Direct electric action utilises a magnet for allowing air into a pipe, with each individual pipe having its own magnet.

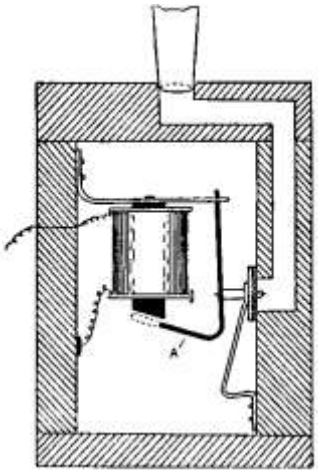

Illustration 2:8: Direct electric action[151]

[150] Sumner (1973) op.cit.p344
[151] Ibid. p345

As with electro-pneumatic action the speed of operation of direct electric action is rapid,[152] but such action is considerably removed from the Classical style of organ building in which all (or most) of the stops in one division are on the same windchest and are operated by one pallet per pitch name – the advantage of this is that the pipes of a number of drawn stops sound simultaneously, whereas with one magnet per pipe there is no guarantee that the pipes will speak neatly together. Direct electric action enabled the development of the Extension system and by the beginning of the period 1945-1970 many players and organ builders were committed to this system. There has been reservation about the musical validity of the Extension system in recent times and this is considered in chapter 4.

2.2.3.3 Comparing key actions

There are strengths and weaknesses with each type of organ key action and much depends upon the quality of build and subsequent care and maintenance of each instrument. The table below lists some of the three broad areas that players should expect to be confronted with when using instruments of the period 1945-1970:

[152] Pykett's research compares the response speeds of electro-pneumatic and direct electric actions, with the evidence suggesting neither one is superior to the other. See:
http://www.pykett.org.uk/response_speed_of_electric_actions.htm

Mechanical action	Pneumatic action	Electric action
Sensitivity of touch with control over the speed of the pallets opening	No sensitivity of touch	No sensitivity of touch
Speed of response is fast	Speed of response can vary, with some actions sluggish	Speed of response is normally fast
A feeling of connection with the instrument, with the cultivation of a clean playing style	Less of a musical connection with the instrument, with the danger of the player developing a sloppy technique	Less of a musical connection with the instrument, with the danger of the player developing a sloppy technique
When coupling manuals the touch can become heavy	There is a light touch to the keyboard and the addition of couplers does not affect this	There is a light touch to the keyboard and the addition of couplers does not affect this
Some restriction as to the number and type of couplers available	A greater range of couplers can be provided	Theoretically no limit to the number of couplers available
General reliability of the organ due to the inherent simplicity of mechanical action, with a potentially long life, though needing carefully regulation	The complex mechanisms are more prone to problems, with repairs and rebuilds more common	The complex mechanisms are more prone to problems, with repairs and rebuilds more common
High wind pressures can result in a heavy and unwieldy touch	The use of high pressure stops becomes viable	The use of high pressure stops becomes viable
Consoles are normally attached or reasonably close to the case. The sound is heard immediately but the balance of the divisions may not be always clear, along with the true effect of the chosen registrations chosen.	Consoles are often attached but can be detached to a reasonable degree, though there is a danger of the action becoming sluggish	Consoles can be positioned anywhere in the building, though sometimes they are positioned too far away from the case and there can be a time lag, affecting the precision of the playing

Illustration 2:9: Comparison of key actions

2.3 Double touch and sustainers

These are specialist devices and are rarely encountered, although a few composers did utilise them. Double touch is the term for where the manual keys have two layers of resistance, the first touch operating the normal stops on a division, the second, deeper touch, acting against a stronger spring, operating specified alternative stops, normally a registration that either is louder than that of the first touch or of a contrasting tone colour. Such devices are quite common on cinema organs but as some builders built both cinema and ‘straight’ organs (for example Comptons) there was inevitably some

crossover in design. Similarly, the sustainer device has its origins in cinema organs – here the player can arrange for specific notes to be held on indefinitely, not dissimilar to the sustain pedal on a piano. Thalben-Ball's *Variations on a theme by Paganini* asks for a sustainer to be used in variation 9:

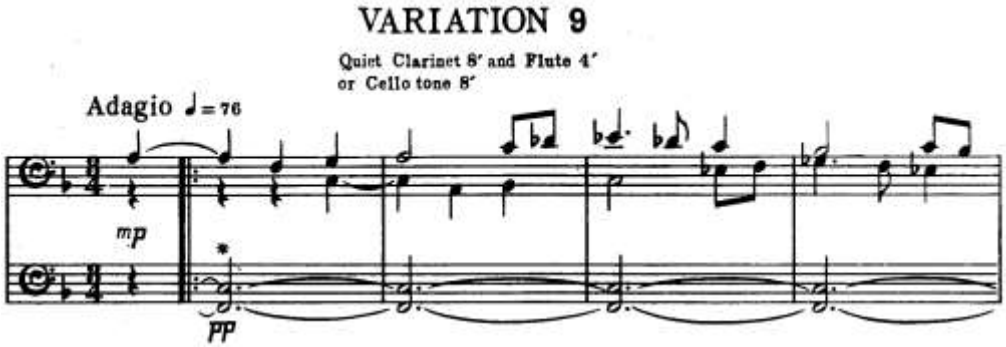

Illustration 2:10 Thalben-Ball – Variation 9[153]

Here Thalben-Ball writes for a drone in the lower stave whilst the upper stave is played by the feet. However, if a sustainer is not available the player could keep the keys down by utilising pieces of paper wedged between the keys or, as a neater and more practical solution, ask a page-turner to assist.

2.4 Controlling registration

The term 'registration' in organ terminology refers to the art of choosing combinations of stops deemed appropriate for the music being performed. The literature published in c.1945-c.1970 dedicated to contemporary organ registration is limited although Goode's book of 1964[154] does provide useful insight to the practices and

[153] Thalben-Ball, G. (1962) *Variations on a theme by Paganini* London: Novello and Co Ltd. p5
[154] Goode, J. C. (1964) *Pipe Organ Registration* Nashville: Abingdon Press

attitudes of the day, with publications after this period including books by Neal[155] and Engel[156].

This section considers the means by which the players can physically manipulate the stops at their disposal. Registration by hand (either by the player and/or by an assistant) was the only way of changing stop combinations from the earliest days of the organ right up to the early part of the nineteenth century; mechanical means of manipulating stop changes gradually developed from the middle part of the nineteenth century onwards, so that by the middle of the twentieth century there was available to the player a vast array of mechanisms, all of which have ramifications when considering performances of the music of the period 1945-1970.

2.4.1 Hand registration

When an organist operates stops directly by hand there is a greater connection with the organ and, logically, with the music. There is an analogy here with the intimacy provided by mechanical key action, which cannot be truly replicated when playing upon an organ with an assisted key action, such as pneumatic or electric. With no pistons there is a limit to the number of stops that can be added and/or subtracted at any point in a performance; further, the lack of pistons limits such changes to take place at obvious breath or comma points in a musical phrase when one or both hands are available (this is assuming the player does not have the luxury of an assistant who can be utilised to use both hands to move stops in and out at a reasonably rapid speed).

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[155] Neal, R. (1982) *The Roy Neal Survey Of Organ Registrations And Techniques* Peterborough: Sceptre Publishers

[156] Engel, J. (1986) *An Introduction to Organ Registration (Church Music Pamphlet Series)* St Louis: Concordia Publishing House

The degree to which stops can be controlled depends on the type of stop control available on any particular organ and this area is considered in more depth in chapter 3. In brief, it can be stated that with conventional drawstops connected to the sliders by mechanical means the length of movement needed to move the slider is quite substantial and, further, it can be difficult to grasp hold of more than two or three stops with each hand. With mechanical stop action a wide contrast in the resistance when drawing or pushing in the stops will be encountered, dependent on factors such as the design of the action and the size of the instrument, and consequently the time taken to move stops in or out is not uniform. As a contrast to conventional drawstops stop keys allow the player to manoeuvre a greater number of stops with one hand than is possible with traditional drawstops. In such cases the stop action would have to be either pneumatic or electric and it is less likely that organs with stop keys would not have some form of piston control, but there are examples from the period of instruments lacking pistons:

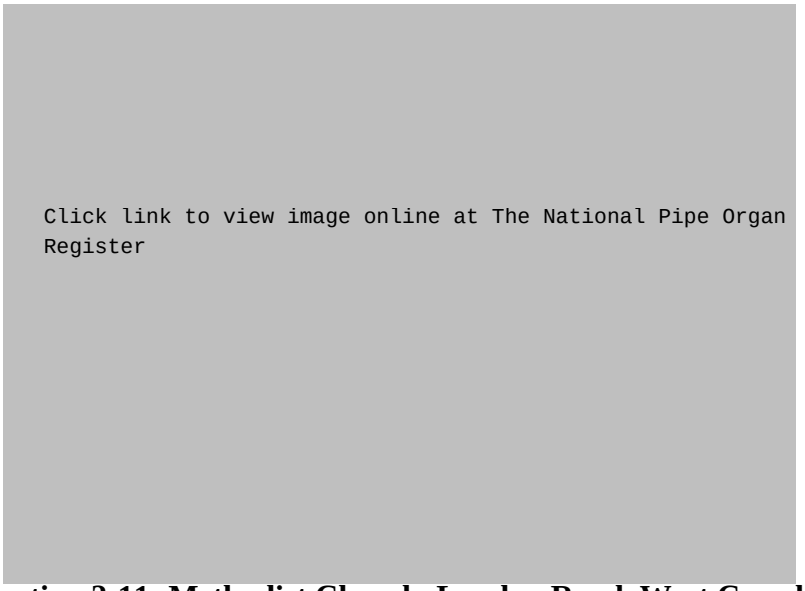

Illustration 2:11: Methodist Church, London Road, West Croydon[157]
Organ by Osmond c. 1960

Example of a stop key console with no piston control. There are 16 stops, with electric action throughout. In such cases the lack of pistons might be due to financial restrictions and/or a decision by the clients that the instrument's use is primarily for simple congregational music and therefore does not warrant registration aids.

2.4.2 Pistons

'Pistons' is the collective term used to describe the devices that enable organists to alter combinations of stops without the players actually having to physically pull out or push in the stops. For the hands a piston is the button under the keyboard (normally operated by the thumb, hence commonly referred to as 'thumb pistons'), whilst for the feet a toe piston or pedal just above the pedalboard is utilised. The principal aim of these devices is to enable quick changes of volume and tone colour within a performance; there is considerable variety in the types of pistons and the mechanisms allied to them.

Three books from the 1940s/50s provide contemporary viewpoints of pistons: in Clutton and Dixon's book[158] the piston settings of an above-average parish church

[157] http://www.npor.org.uk/NPORView.html?RI=N01294 accessed 4.9.09

organ are given (St Bees, Whitehaven), providing a snapshot of one player's ideas in this period (see Appendix 1); in the first of his two books Whitworth[159] focuses on the technical side of electric pistons of the 1940s, and in his second book (from a few years later) he observed that many organs had only two or three composition pedals and that these were often fixed when the organ was built. Whitworth saw that 'not infrequently these combinations are far from happy',[160] a concern further considered in the writings of Dixon. Insight to the practices of one player in the 1970s can be found in Rennert's biography of George Thalben-Ball,[161] one of the foremost organ recitalists in the twentieth century; his pistons settings for the Temple Church organ in the 1970s are listed (see Appendix 3), although it has to be born in mind that this instrument was used by Thalben-Ball primarily for accompanying traditional Anglican church music.

Concern about the possible misuse of pistons from a tonal viewpoint was raised by the authors of The British Organ:

> ….the very ease of stop operation which the Willis system provided …has led to lazy habits of registration. All too many modern organists rely entirely upon pistons for registration, and have the Swell organ permanently coupled to the Great. They seldom move a stop-knob by hand. As the pistons are often set in a most haphazard style, the resultant mash of tone, presented in greater or less volume, is not particularly flattering to the organ nor interesting to the audience or congregation.[162]

In a similar vein, Paul Hale considered the dangers of distorting a composer's original conception by overlooking the restrictions of the instrument of the time:

> registration changes can be so easy (nowadays) that it can be a temptation to overdo them…composers such as César Franck allowed natural pauses in the music for registration and if the

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[158] Clutton and Dixon (1950) op.cit.p164
[159] Whitworth, R. (1948) *The Electric Organ* 3rd edition London: Musical Opinion pp110-140
[160] Whitworth, R. (1951) *Organ Stops and their uses* London: Pitman & Sons Ltd. p69
[161] Rennert, J. (1979*) George Thalben-Ball.* Newton Abbot: David and Charles. pp159-161
[162] Clutton, C. and Niland, A. (1963) *The British Organ* London: Eyre Methuen. p126

> changes were too easy there was a temptation to rush the pauses.[163]

Although Hale refers to music of a different period and country (i.e. France in the late nineteenth-century) his comments are pertinent to British organ music 1945-1970. A point related to this is the speed of operation of pistons of different design. Nowadays, many players are accustomed to the rapid response of electric pistons/sliders but pneumatic pistons are not consistent in their efficiency, with some considerably slower in operation than others.

2.4.2.1 Mechanical systems

The first developments to manipulate groups of stops date back to the seventeenth century when a device known as 'shifting movement' was used to take off, or mute, certain ranks, in particular high-pitched stops such as mixtures. Limited though this was (there was no method of choosing other stops to be selected) it did allow the player to alter the dynamic level quickly.

In the early nineteenth century this system was developed by, amongst others, J.C. Bishop of London, into what is commonly known today as composition pedals (or combination pedals – the terms are interchangeable). Since the key and pedal actions were mechanical in this period these early combination systems were also mechanical and the only option was for them to be operated by the feet, since the amount of movement and effort needed to shift the drawstops would not be feasible for a thumb piston:

[163] Norman, J.(1997) Soundboard talks to Paul Hale about console equipment *The Organists' Review* Vol. LXXXIII May p108

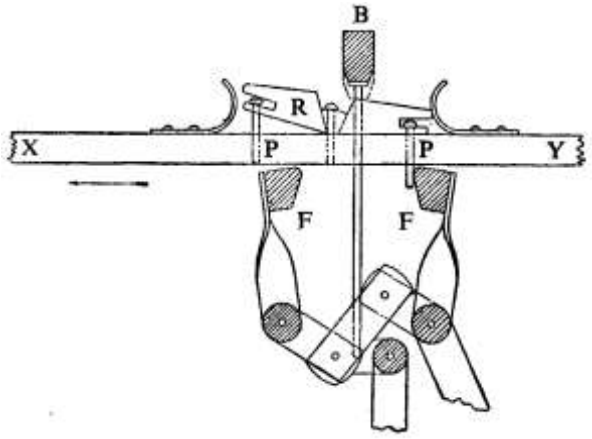

Illustration 2:12: Mechanical composition pedal mechanism[164]

The mechanism is relatively simple in design but in most cases the choice of stops is fixed by the organ builders and seldom changed, since this entails unscrewing blocks of wood and screwing back into new positions – a time-consuming operation and something an organ builder would not wish to do on every tuning visit. Nevertheless, it is inevitable that over a period of time changes would have been made to the original combinations set up when any particular organ was built and therefore it cannot be said with any certainty exactly which particular combinations were popular in any one period.

The number of mechanical composition pedals to be found on any one organ is limited by space available for the mechanism which inevitably is bulky, hence it is rare to find more than five pedals per division; even cathedral organs such as the one built by Hele in 1904 for Chichester, an organ of thirty-four stops, only had three composition pedals for the Great and three for the Swell.[165] Such composition pedals are normally restricted to the two principal divisions i.e. the Great (with sometimes the Pedal stops being affected as well) and the Swell. Mechanical reversible pedals for

[164] Sumner (1973) op.cit.p360
[165] http://www.npor.org.uk/NPORView.html?RI=N15546 Accessed 3.8.12

couplers are sometimes to be found, with the Great to Pedal coupler being the most common one, with some having an additional reversible pedal for the Swell to Great coupler. An example of the layout of such pedals from a large organ (43 stops over 4 manuals) built in the latter part of the nineteenth century is illustrated below and such organs would still have been extant in the period 1945-1970:

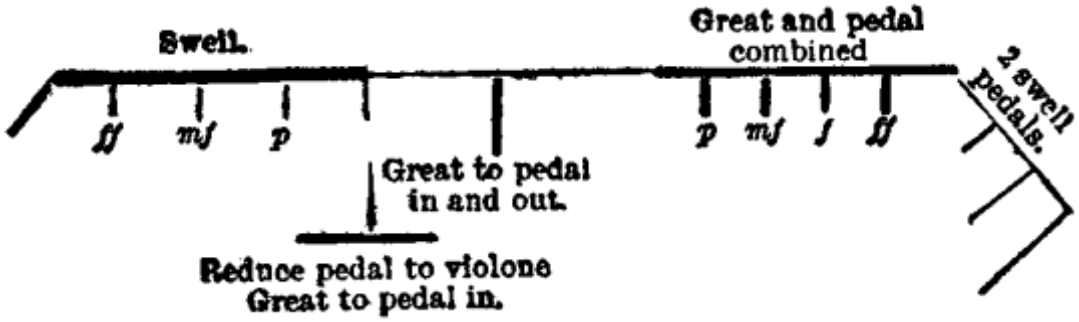

Illustration 2:13: Combination pedals in 1883[166]
Organ by Gray and Davison in
St George's Chapel Windsor[167]

2.4.2.2 Pneumatic systems

Along with the development of pneumatic key action in the nineteenth century there were experiments with the pneumatic operation of sliders, a consequence of larger instruments being built in which the longer runs for the slider mechanisms tended to result in stiff and unwieldy stop control. From this grew logically the change from installing mechanical composition pedals to building pneumatic ones and, eventually, thumb pistons, opening up far greater possibilities for variety and flexibility in the manipulation of stops.[168] Thumb pistons (or more commonly, just 'pistons') are designed to be pressed by a thumb from either hand whilst the remaining fingers can

[166] Bosanquet, R.H.M. (1911) en.wikisource.org/wiki/1911_Encyclopædia_Britannica/Organ Accessed 29.10.12
[167] http://www.npor.org.uk/NPORView.html?RI=N09877 accessed 5.9.09
[168] Bicknell, S. (1998) Organ Construction. In *The Cambridge companion to the organ.* Thistlethwaite, N. and Webber, G. (eds.) Cambridge: Cambridge University Press. p74. Bicknell notes that by 1890 simple pistons were used by Willis.

still play notes on the keyboard. The design and different positioning of pistons is considered in chapter 3 but, in general, the average console with a pneumatic system from the period 1945-1970 did not have a large number of pistons and, sometimes, not every department was provided with them, e.g. the Choir. However, the number of pistons per division did grow once the physical restriction of mechanical combination pedals was removed, although again this does vary tremendously. The table below shows the increase in these registration aids at St Paul's Cathedral in the space of 28 years:

Comparison of pistons 1872 and 1900	
Pistons in 1872	**Pistons in 1900**
Choir - 4	Choir - 6
Great - 4	Great - 8 pistons (2 variable)
Swell - 4	Swell - 6
Solo - 4	Solo - 6 (4 variable)
	Tuba - 4
Pedal - 4 composition pedals	Pedal - 7 composition pedals (and Great & Pedal coupled)
1 pedal (double action) Great to Pedal	8 generals (these duplicated all divisions in the end of each key slip)
1 pedal Swell to Great	Dome tubas to Great on and off
	Chancel tubas to Great on and off
	Great and Pedal pistons

Illustration 2:14: Piston provision - St Paul's Cathedral, London[169]
Organ by Henry Willis 1872/1900

Another advantage that pneumatic pistons (both thumb and foot) have over mechanical systems is that it is easier to adjust them. Not that this means that many extent instruments actually have the means for the players to make such adjustments themselves, since the cost of providing adjustable pneumatic pistons was sufficiently high to deter most clients – in most cases such adjustable pneumatic pistons are

[169] Plumley, N. M. and Niland, A. (2001) *A history of the organs in St Paul's Cathedral.* Oxford: Positif Press pp102+114

normally only to be found on prestigious large instalments e.g. Newcastle City Hall[170], St Paul's Cathedral[171], or occasionally churches where finances were not an issue e.g. St Bees in Cumbria.[172]

2.4.2.3 Electrical systems

As with the development of pneumatic key actions the increased usage of electric key action in the middle of the nineteenth century brought with it increased experiments with electrically operated stop control and registration aids. The nineteenth century saw many technological advances but not all developments and experiments proved to be successful or endurable; in the world of the organ there were many unusual attempts to use electricity in organ building and many of these innovations have not survived. Particularly exotic devices were incorporated in a number of organs by Robert Hope-Jones,[173] but these have fallen by the wayside and thus a player in the period 1945-1970 would not have expected to have encountered them. Inevitably the reliability in the early days of electrical devices was poor, due to the need to use inefficient batteries,[174] and there can still be found organs from the early to the middle of the twentieth century that rely on electricity for the key action but have pistons driven by pneumatic drawstops.[175]

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[170] http://www.npor.org.uk/NPORView.html?RI=N04108 accessed 5.9.09
[171] Plumley and Niland (2001) op.cit.p114
[172] Clutton and Dixon (1950) op.cit.p165. In reference to the 1899 organ by Willis at St Bees: *'The action is tubular pneumatic. All the combinations are easily adjustable by switchboard.'*
[173] Clark, R. (1993) *Robert Hope-Jones, M.I.E.E.: an interim account of his work in the British Isles.* University of Reading: Unpublished PhD. Examples of Hope-Jones's unusual inventions include: (page 10) crescendo and diminuendo pedals acting upon the stop keys; a sforzando device; a transposition switch; (page 25) pizzicato touch.
[174] Hemsley (2005) op.cit.p248. The new organ in Rugby School Chapel in 1872, built by Brycesons, had a detached console with electric action, but the action proved so unsuccessful that soon after the instrument had been opened the school's Music Master had to pay £100 for the Pedal action to be converted to pneumatic.
[175] Harrisons used these in many of their large organs, with the generously scaled consoles having high pressure air inside to operate the drawstops. The author studied on the organ of Winchester Cathedral in

A clear advantage of electrically controlled pistons, as opposed to pneumatically controlled ones, was that it became gradually cheaper to increase the number of pistons per division, and hence across the whole organ, in addition to increasing the number of reversible pistons. Additionally, consoles became less bulky once the pneumatic systems were dispensed with, and whilst the adjustment of combinations on an electric action system is easier than with pneumatic action, the introduction in the period 1945-1970 of instantly adjustable pistons was a slower process, due mainly to prohibitive costs.

2.4.3 Comparisons of piston actions

In Paul Hale's article (quoted above) a valid point is made concerning the need to let the music breathe whilst making registration changes. Hale's article is specifically about the use of ventils in French Romantic music but the musical concerns about the pacing of registration are equally pertinent for organ music in the period 1945-1970. Composers might expect instant changes in dynamics and/or tone colours, but some such changes are not physically feasible, whilst other changes might work, but the need for 'air' in phrases to add or subtract stops can add a much needed musical dimension to a performance.

All three types of piston action will be encountered in instruments of the period 1945-1970 and comparisons of them are listed here:

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his teens and recalls that the very noisy thud from the powerful pneumatic motors was the norm: pressing general cancel when many stops were drawn resulted in a particularly loud thud that used to reverberate up and down the cathedral.

Mechanical	Pneumatic	Electric
Foot pedals only	Thumb and foot pistons	Thumb and foot pistons
Direct mechanical connection means they are mostly very reliable.	Complex mechanics and not always reliable. When worn air can leak and the operation can be uneven.	Mostly reliable but prone to wear and tear of the parts, especially the solenoids.
The speed of operation is dependent on the performer.	Well-regulated ones move rapidly. Possible problem of noise.	Normally very quick acting
The combination pedals must be depressed fully, otherwise there is a danger of mechanical slider drawstops not being pushed out sufficiently – if this happens the slide(s) will not allow enough air to reach the pipes.	Normally sensitive to touch but the player must depress the piston or pedal sufficiently long for the air to operate the sliders.	Systems vary but in most cases a brief touch is normally sufficient for the stops to be activated.
Limited number available	A reasonable number available	No limit, subject to finances

Illustration 2:15: Comparison of piston actions

2.4.4 Fixed and adjustable pistons

As shown above, mechanical combination pedals were mostly constructed with fixed settings. Alongside the development in key action a number of organ builders showed great ingenuity in devising systems whereby the players could themselves choose their own combinations. There was no standardisation of organs in the period 1945-1970, with both fixed and adjustable systems, and this is now considered below.

2.4.4.1 Fixed pistons

The most common and logical set up of fixed pistons is to move sequentially from a quiet dynamic (e.g. *pp*) through to a loud one (e.g. *ff*).

With fixed mechanical combination pedals it is often the case that the highest combination pedal pushes out all, or at least the majority of the stops on a particular division, resulting frequently in a thick texture; clarity is further clouded due to the

demands on the winding system from the large number of stops. The reason that such combinations are to be found might be due simply to the fact that during this time the majority of players preferred this type of texture. The pre-eminent nineteenth-century organist John Stainer's suggestions on how to build up the registration from *pp* to *ff* on the Great and Swell of a large instrument are reproduced below, and it is noteworthy that with the louder registrations nothing is done to select a small number of stops to aid clarity:

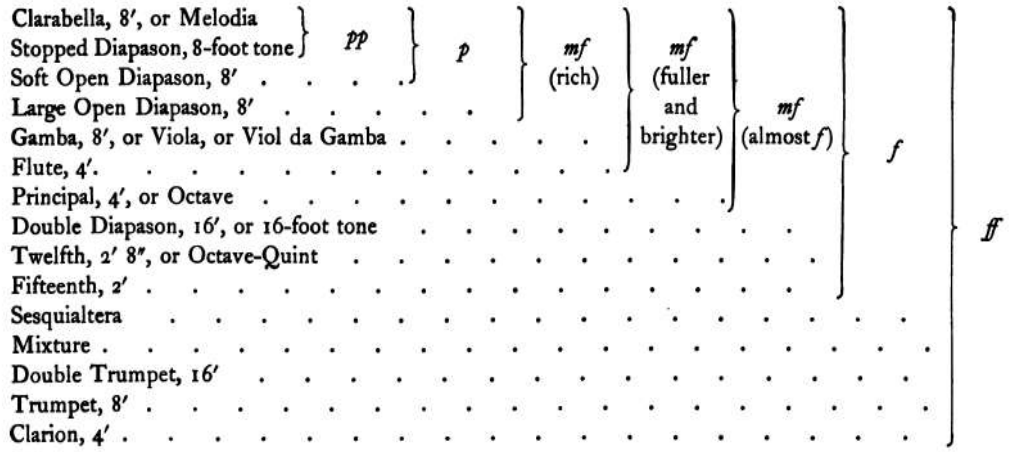

Illustration 2:16: Dynamic gradations on the Great[176]

[176] Stainer (1877) op.cit.p23

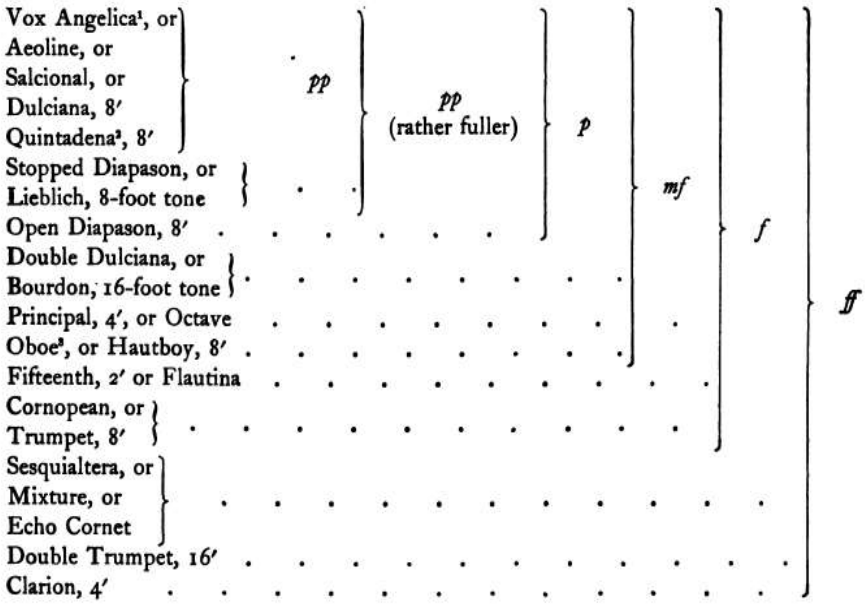

Illustration 2:17: Dynamic gradations on the Swell[177]

These examples come from Stainer's influential tutor *The Organ*, a book first published in 1877 but they are pertinent to the period 1945-1970 since this particular organ tutor remained popular for much of the twentieth century, before being replaced in popularity in the 1970s by C.H. Trevor's publication.[178] When organs are set up with these standardised combinations they do not encourage imagination, with the organists who rely on them ending up with many, if not all pieces, sounding much the same. Examples of more imaginative combinations can be in Appendices 1, 2 and 3 where examples are given of registrations from three contrasting instruments:

- Westminster Cathedral, London c.1932
- St Bees Church, Whitehaven c.1950
- The Temple Church, London c.1978

[177] Ibid. p24
[178] Trevor, C. H. (1971) *The Oxford Organ Method.* London: Oxford University Press.

2.4.4.2 Adjustable pistons

With the advent of electricity builders in the nineteenth century developed adjustable piston systems that incorporated this new source of energy, developing such systems considerably in the first half of the twentieth century, with electro-pneumatic and then electro-mechanical systems being introduced, with the major firms such as Compton, Hill, Norman & Beard and Willis showing considerable skill and imagination in their designs. A drawback of all adjustable capture systems in the period 1945-1970 was that they rarely boasted more than one single memory level,[179] with players only able to store one setting at a time for each piston. In the pre-solid state electronics era anything more would have been inconceivably complicated, impossibly expensive and hopelessly unreliable and it was only with the advent of cheap digital solid state electronics that multiple memories have become available.

With mechanical combination pedals it is extremely rare to find organs in which the builders incorporate systems that enable the players to make adjustments at the console, although in more recent times a few builders have done so. A particularly interesting version, though outside the period 1945-1970, was installed by the firm of Manders in their new organ for Magdalen College, Oxford, built in 1985/6. For this instrument they provided four adjustable mechanical general composition pedals, along with reversible foot levers for the Great to Pedal and Swell to Pedal couplers, with the four general composition pedals adjustable by means of counterpart drawstops at the bottom of the

[179] Norman (1999) op.cit.p37 Norman recounts that in 1955 a student at Marlborough College suggested the firm of HNB should fit three memory levels of their adjustable pistons on the new organ, a suggestion that was greeted with astonishment due to the prohibitive cost of just one memory level.

right-hand jamb.[180] With pneumatic and electric adjustable pistons there are two systems from the period that the player might encounter:

2.4.4.2.1 The switch system

The switch system has a switch for each stop for each piston on a division, thus enabling the stop to be selected as required. As an example, an organ with a Great division of ten stops and five pistons would need fifty switches and understandably this system does take up a reasonable amount of space, which can prohibit the number of pistons supplied per division. The location of the board containing the switches (known as the setter board) can vary, examples including:

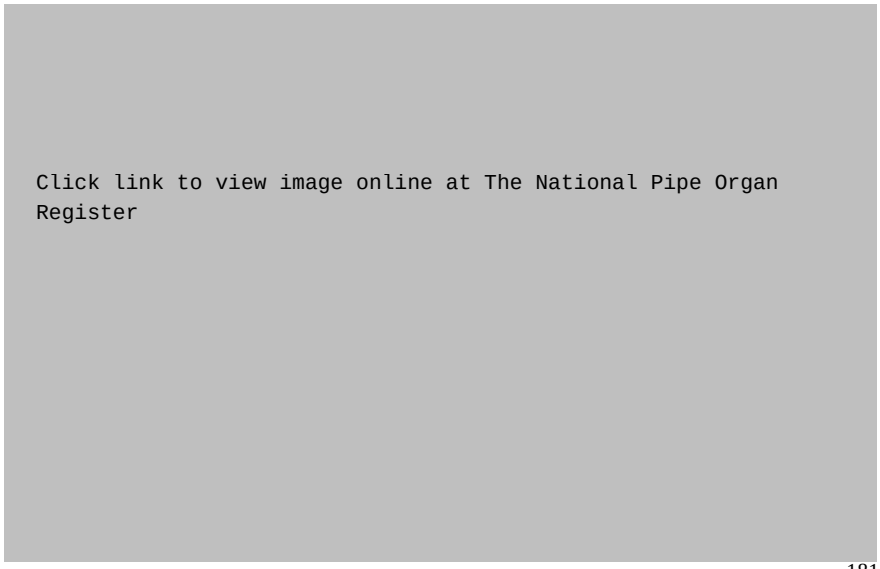

Illustration 2:18: Setter board - Baptist Tabernacle, Barking[181]
Organ by Walker 1952
Example of piston setter board in drawers either side of the player

[180] NPOR http://www.npor.org.uk/NPORView.html?RI=N09181 Accessed 12.7.10
[181] http://www.npor.org.uk/NPORView.html?RI=P00291 Accessed 5.7.11

Click link to view image online at The National Pipe Organ Register

Illustration 2:19: Setter board - St Cuthbert Manchester[182]
Organ by Jardine 1956
Example of setter board integrated into console (above the drawstops)

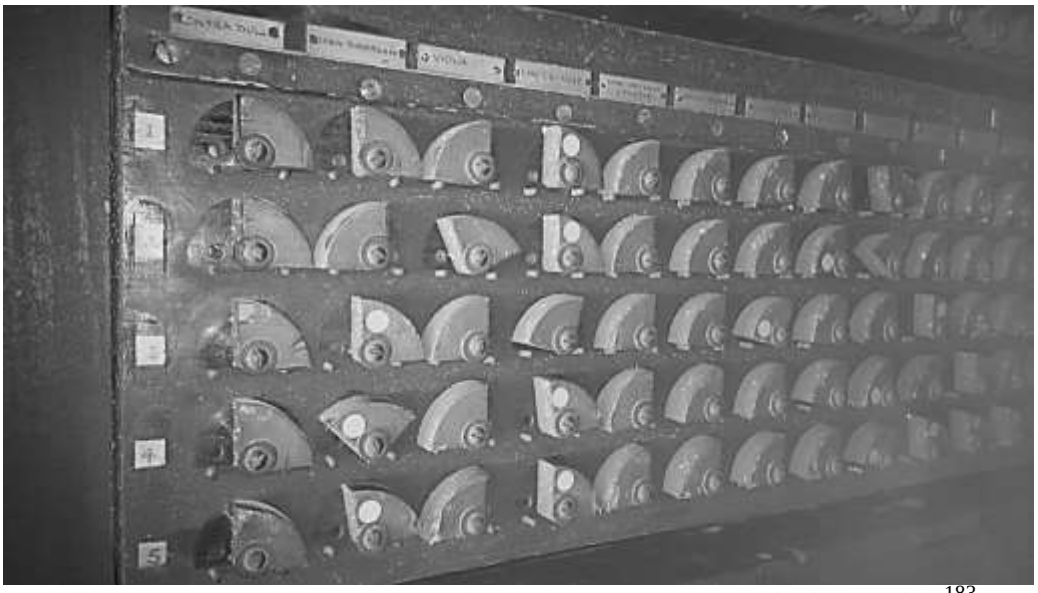

Illustration 2:20: Setter board - Westminster Cathedral, London[183]
Organ by Willis 1932
The original setter board for the Choir division of this notable instrument. Though no longer used (the system was replaced in 1985 by solid state switching) the disconnected setter boards are stored inside the organ and have orange stickers on each switch, indicating the registration settings from 1932.[184]

[182] http://www.npor.org.uk/NPORView.html?RI=L00024 accessed 5.10.09
[183] Photographed by the Author
[184] See Appendix 3 for details of these original piston settings.

The switch system can have one advantage over setter systems, in that some switches have a neutral position in addition to positions for ‘on’ and ‘off’. This slightly increases the permutations available, especially if there are not that many pistons on the organ. However, in general, the switch system is inconvenient for a recitalist due to the time it takes to change piston settings by hand (and probably having to return them afterward).

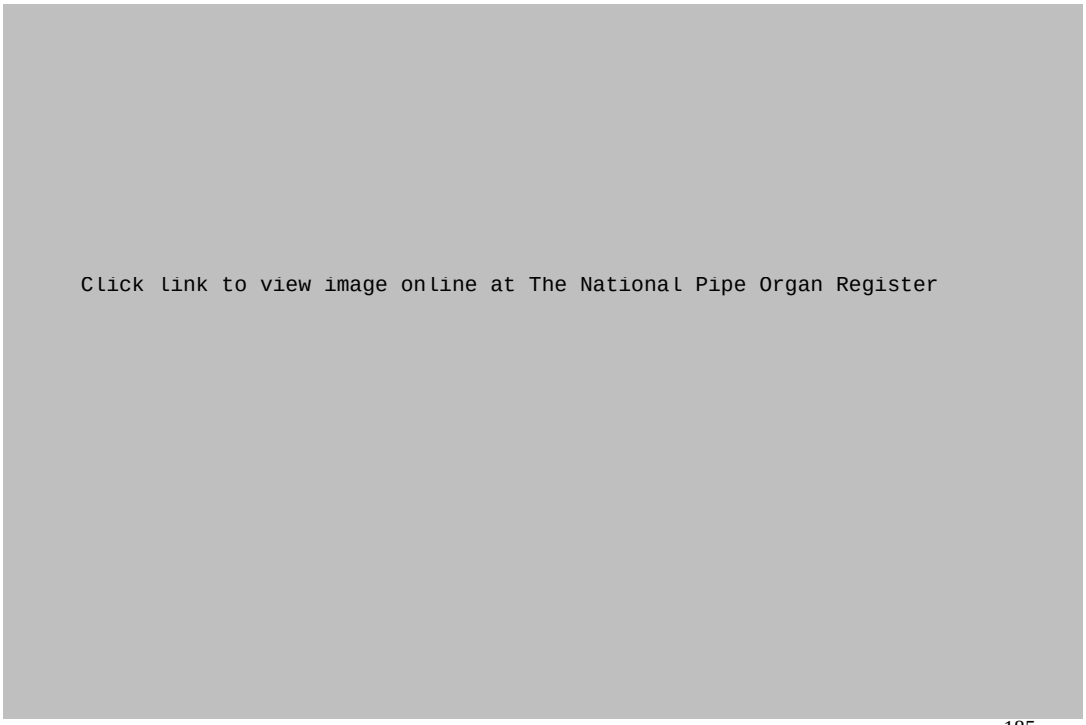

Illustration 2:21: Detail of setter board - Baptist Tabernacle, Barking[185]
Organ by Walker 1952
Close up detail of piston setter board

2.4.4.2.2 The setter system

The piston setter system allows the player to have full control over changing registrations in a simple and quick manner and clearly this makes it attractive to performers. The most common system to be found is where the player chooses the required stops, presses the setter button (often, but not exclusively, located on the left

[185] http://www.npor.org.uk/NPORView.html?RI=P00291 accessed 5.7.11

hand corner of the console's lowest manual) and, keeping the setter button depressed, presses the piston to which the registration needs to be allocated:

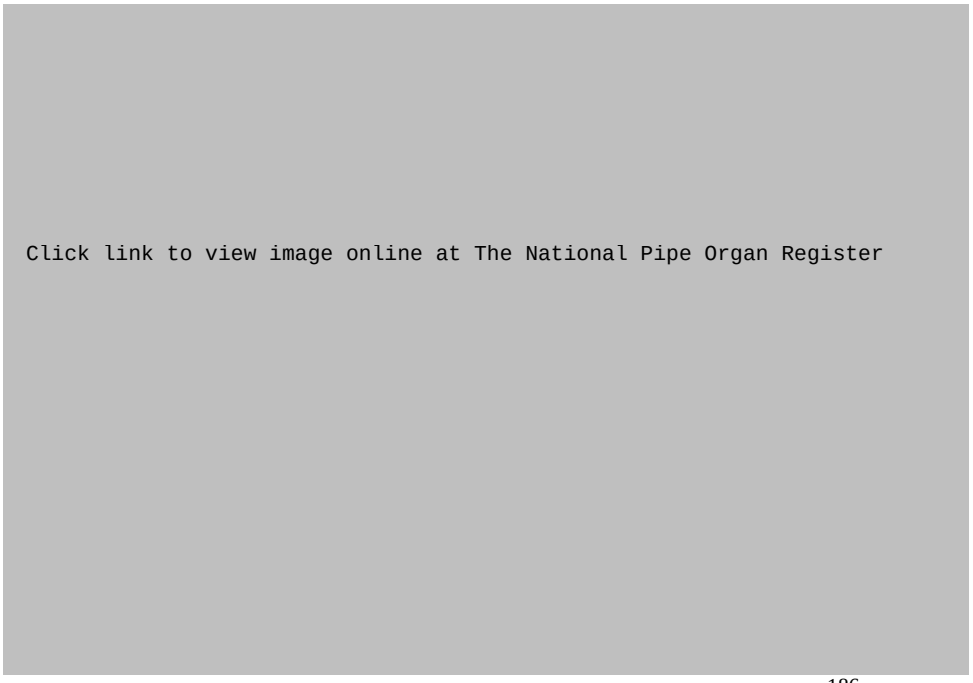

Illustration 2:22 St. Mary's Cathedral, Edinburgh[186]
Organ by Harrisons 1929/2009
Setter piston location – bottom left, under Choir manual

Occasionally different approaches to the setter piston can be encountered, including:

[186] http://www.npor.org.uk/NPORView.html?RI=D07927 accessed 5.11.10

Illustration 2:23: Setter system - Albert Hall, Nottingham[187]

Organ by Binns 1910

Example of a pneumatic drawstop setting system, with four adjustable pistons per division, set above the speaking stops

[187] http://binns.info/organ/specification/ Accessed 3.10.11

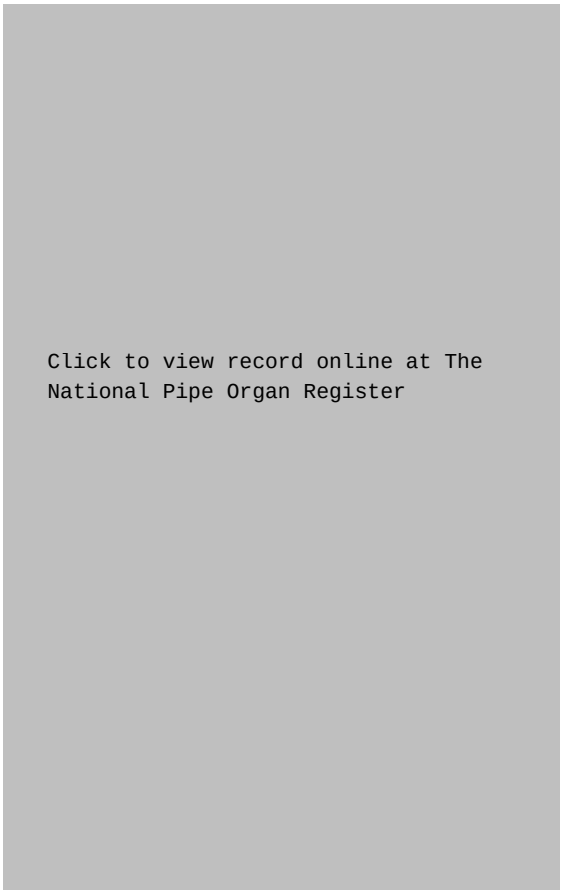

Illustration 2:24 Setter system - New College Oxford[188]
Organ by Grant, Degens and Bradbeer 1969
GDB supplied four adjustable pistons per division, operated by buttons above the drawstops. There were also four general pistons but these had to be changed by switchboard.

2.4.5 Types of pistons

If an organ has pistons then the Divisional pistons (i.e. pistons for the Great, Swell etc.) are normally the first type to be included, though there are a few exceptions to this - the firm of GDB fitted just three general pistons, with no other registration accessory, on their new organ of two manuals and 22 stops for the Meeting House, University of Sussex in 1966.[189] In this particular case the designer and builder Maurice Forsyth-

[188] Forsyth-Grant, M. (1987) *Twenty-one years of organ building* Oxford: Positif Press p145
[189] http://www.npor.org.uk/NPORView.html?RI=N15384 accessed 4.7.09

Grant was possibly trying to make a statement about the need to avoid the over-use of registration aids.

Pistons to be found on organs of this period can be classified in three groups:

- Divisionals
- Generals
- Reversibles

2.4.5.1 Divisional pistons

Divisional pistons control exclusively the stops for any one division of an organ and are placed in the key slip of the corresponding manual or, in the case of the Pedal division, as toe pistons or pedals, though occasionally builders will place pistons for the Pedal division in one of the manual key slips. Mechanical combination pedals, due to their limitations, can only control specific divisions of the organ and logically builders would use these for the principal divisions i.e. the Great (and in some organs the same pistons always control the Pedal simultaneously) and the Swell. The number of pistons per division varies throughout the period, with much depending on the size of organ and finance, with theoretically no upper limit, though even large instruments, such as Westminster Abbey with 113 stops, do not go beyond ten per division.

2.4.5.2 General pistons

General pistons affect every stop on an organ and are clearly very useful for the player, enabling major registration changes to take place with a simple push of one piston or pedal, as opposed to pressing as many as four or five pistons to obtain the required effect. With general pistons it is more likely that the builder provides an

adjustable system, and such devices were available at the beginning of the period 1945-1970 though they were not very common, even on large instruments in significant venues.

The positioning of general pistons on consoles is not consistent. Some are placed above the top manual, whilst others are placed on the key slip of the top manual but to the left or right of that manual's divisional pistons. There is no clear consensus about this and it is not unknown for the general pistons to be positioned in a very awkward manner, giving the appearance that musical considerations have not come into the planning. One such example is that of the organ of St Paul's Cathedral in 1900 in which the builder provided 'eight pistons acting according to the arrangement on all the other pistons.'[190] The photograph of the original console of this instrument from 1900 (see illustration in chapter 3) shows these eight general pistons in the ends of the key cheeks, i.e. the Great/Swell/Solo/Vth manuals each have one piston at each end.[191] These pistons could not have been very easy for the player to access in the course of a performance but it might be the case they were deliberately placed in these positions for an assistant to operate. The wording from the original builder's specification is a little vague, not explaining whether these eight pistons acted independently of the divisional pistons i.e. in the accepted sense of general pistons found nowadays, or whether they operated all of the divisional pistons simultaneously, despite the problem of there being different numbers of pistons per division: Choir - 6/Great - 8/ Swell - 6/ Solo - 6/ Tuba – 4. The firm of Compton's occasionally compromised in a similar manner, by adding

[190] Plumley and Niland (2001) op.cit.p114
[191] Ibid. p115

piston coupling switches to their organs, which allowed the player to join all of the pistons from each division together.

The number of general pistons varies considerably in the period 1945-1970 and even large instruments can be found with only four, if any at all, and clearly financial restraints affected the inclusion of what was perceived as a luxury item.

2.4.5.3 Reversible pistons

Reversible pistons normally control couplers and certain solo stops, with a double-acting mechanism that reverses the position of the relevant stop, bringing it on or off as required. The provision of reversible pistons varies but there is a form of hierarchy, particularly with couplers, with the following three stops being important:

- Great to Pedal
- Swell to Great
- Swell to Pedal

If only one reversible is included in an organ's design then in virtually every case it will be for the Great to Pedal coupler, with the reversible piston provided either as a toe pedal or thumb piston or both. Many twentieth-century British organ compositions include the direction to add or subtract the Great to Pedal coupler and for many of these pieces this particular reversible is near-well indispensable. Other couplers may be controlled by reversible pistons but there is little sense of pattern in the provision of them, varying not just from builder to builder but also within similar designs from each firm.

Reversibles for other stops are sometimes included and these tend to be stops that have strong characteristics, be it tonally, dynamically or those pitched at the sub-unison. Examples include:

- Clarinet
- Orchestral Oboe
- Tuba
- A powerful Pedal reed (e.g. Trombone 16ft.)
- A Pedal 32ft. stop (e.g. a Bombarde 32ft. or a Sub Bourdon 32ft.)
- Tremulants
- Specific combinations drawing out several stops e.g. a clarinet stop sounding at 8ft. but derived from a 16ft. clarinet using octave and unison off couplers.

The number of reversibles included in the organ has grown considerably over the course of the twentieth century, as can be seen when comparing the console for York Minster from 1932 and 1993:

1932 console	1993 console
Reversible thumb pistons for: sw-gt so-gt gt-pd	Reversible thumb pistons for: gt-pd sw-pd ch-pd solo-pd sw-gt ch-gt solo-gt sw-ch solo-ch solo-sw gt-solo Pedal Dbl Open Wood 32
Reversible toe pistons for: gt-pd so-pd	Reversible toe pistons for: gt-pd sw-gt

Illustration 2:25 York Minster reversible pistons - 1932/1993[192]

2.5 Other forms of registration control

Pistons are by far the most common form of registration aid to be found on organs of the period 1945-1970 but there are some further devices that might be encountered and which can be of musical use to the player.

2.5.1 Second touch pistons

This system is often to be found on organs by Comptons, although other builders did utilise it. The divisional thumb pistons are designed to have two stages: the initial depression works in the normal way, activating the stops of that particular division but by pushing further on the piston against a stronger spring, the player can bring out Pedal stops, which are normally chosen to balance the corresponding manual stops.

[192] http://www.npor.org.uk/NPORView.html?RI=D04217 accessed 4.9.09

2.5.2 Combination couplers

Combination couplers allow the player to combine two divisions on to one set of divisional pistons or pedals. The most common combination coupler is for the Great and the Pedal divisions and such couplers are slightly more sophisticated versions of the second touch pistons (above).

2.5.3 General crescendo pedal

The general crescendo pedal has its origins in the nineteenth century, with the first recorded use of such a device by the firm of William Hill in 1857. In Germany the device is known as the *rollschweller* and is to be found on many German organs, with its use particularly associated with romantic composers such as Reger; in Britain the device is not so common, although certain builders in the early to middle of the twentieth century did make use of it, with Compton including the pedals on all sizes of instruments. The general crescendo pedal in most cases looks like a normal balanced swell pedal, is often positioned to the right of any divisional swell pedal(s) and draws out the stops blind i.e. the stop drawstops/tabs do not themselves move but the sliders are activated, moving from *pp* to *ff* in a gradual crescendo. Some organ builders include a visual indicator to assist in the control of the pedal but many organs do not have this and players can be unpleasantly caught out if care is not taken to ensure the pedal is reset to 'off' before playing.

On a very few organs this general crescendo pedal is adjustable and the choice of which stops are to be drawn and in which order can be left to the player, but in the majority of cases the addition of stops is rather crude and of limited musical worth. Composers do not refer to its use in music of the period but nevertheless players need to

be aware of it, since many original organs of the period 1945-1970 will be encountered with the pedals still functioning.

2.5.4 Ventils

Ventils are an integral part of registration for French Romantic organ music, allowing the player to cut off the wind to certain stops or groups of stops (often reeds). In Britain, ventils can be found on certain builders' organs, such as some Extension organs built by Comptons, but these are not designed as registration aids but rather as safety devices, allowing the player to cut off wind if a cipher occurs on a particular chest. Occasionally, however, a player will encounter a British organ with a proper ventil system, either because the instrument has been built as an historic copy or in fact was built by a French builder. One such example of the latter case is to be found in Farnborough Abbey[193] where each stop of the Grand Orgue (i.e. the Great) can be selected, by turning the stop knob through 90 degrees, each one not sounding until a ventil ("Appel Grande Orgue") is depressed.

2.5.5 Second-touch cancel

This system is primarily a means of cancelling stops on any one division, but there are also some musical applications with such devices. Comptons frequently incorporated this mechanism into their organs (though according to Whitworth this device was patented by J. W. Walkers[194]) which worked by allowing a player to cancel all of the stops in a particular division by depressing further upon their chosen stop key

[193] http://www.npor.org.uk/NPORView.html?RI=N08452 accessed 15.9.11
[194] Whitworth, R. (1951) *Organ Stops and their uses.* London: Pitman p76

(or pulling harder on a drawstop). This system enhances the usual divisional pistons provision but can be a little precarious if a player forgets about it and instead of adding a single stop suddenly finds their registration has gone seriously adrift - fortunately builders were alert to this and sometimes included an option to switch the mechanism off. This device is related to hand operation of stops (see above) with the player manipulating the stops by hand and it is a time-saving device.

2.5.5.1 Miscellaneous pistons

- General cancel piston

A very useful piston but surprisingly not always found on organs in the period 1945-1970, even on quite substantial instruments. In some organs there are separate cancel devices for each division, with the type and positioning varying: some are located near the stops of each division, whilst others are standard divisional pistons but numbered as zero.

- Full organ piston

This brings out a suitably loud combination of stops (not normally adjustable) and often it works blind with a warning light i.e. the sliders are operated independently of the drawstops/stopkeys. As with the general crescendo pedal this device has the potential to cause considerable embarrassment to a player. 'Blind' pistons are also sometimes used for operating special stops, such as cymbelsterns.

2.6 Sequencer

This system of stop control needs to be mentioned although such devices were not in place on organs in the period 1945-1970, being a more recent innovation. There are two

types of sequencers, the first having advance and reverse pistons that act purely on the general pistons, so that the player (or assistant) simply has to press ‘advance’ to move onto the next combination in the sequence, or ‘reverse’ if required. The second type of sequencer is independent of the general pistons though acting still on the whole organ, having its own memory system, with a visual display showing which number in the sequence has been reached. Often there is a huge number of possibilities (for example, on the organ of Bath Abbey the player can programme well over a thousand different registrations) and this can give the organist a quite remarkable kaleidoscopic range of colours to play with, but there is a danger of ‘over-registering’ pieces, particularly from this period.

2.7 Couplers

Speaking stops are not the only components of an organ. Couplers enable the various divisions of the organ to be joined together, thereby increasing the permutations of tone and dynamic e.g. by drawing the Swell to Great coupler the stops of the Swell are joined with those on the Great. In the early history of the organ such devices did not have a significant role but during the nineteenth century, especially in the British organ, such devices became virtually indispensable.

With many British instruments from the late nineteenth century into the middle of the twentieth century it would be musically challenging to perform much of the standard repertoire without couplers, especially with the typical Pedal division of small organs consisting of only a few stops at 16ft. and 8ft. pitch. Many a commentator has bemoaned this habit, but if the instrument has a very limited Pedal division then there is often no option but to do so. In the 1940s the inclusion in a rebuild of a 4ft. stop on the

Pedal was clearly unusual enough for Dixon to comment that '(this stop) renders the Pedal almost independent of the Great to Pedal coupler.'[195]

Frequent references to the Great to Pedal and Swell to Great couplers in registration suggestions are to be found in compositions of this period, with these two couplers often being the first stops drawn before selecting speaking ones. This is not to say that all were happy with this situation. Sir Walter Parratt,[196] who was a strong advocate for single 8 ft. stops and uncoupled manuals, advised his students that 'the Swell to Great is the first stop the ordinary organist draws and the last he puts in.'[197] Writing in the 1950s Whitworth felt that couplers were often abused, with many players not allowing

> the fine clear fresh tone of the Great organ ensemble and its lesser combinations to be heard, without at least part of the Swell organ being coupled.[198]

Dixon explores this further, noting the tuning implications when two manuals are always coupled, especially since reeds of different divisions are hardly ever truly in tune with each other. This has to be balanced in this period, however, with the expectation by composers of organ music for frequent use of the swell box; many pieces have copious hairpin markings, suggesting the Swell division should be coupled to the Great division more or less permanently.

Couplers on organs in the period 1945-1970 can be classified as:

- Primary couplers

  These are likely to be found on virtually all organs.

- Secondary couplers

[195] Dixon (1947) op.cit.p156 This was in reference to the organ at St James's West Hartlepool
[196] Sir Walter Parratt (1841-1924). One of the foremost organists and teachers of his day. Appointments included St George's Chapel Windsor, the RCM and Oxford University (Heather Professor of Music).
[197] Clutton and Dixon (1950) op.cit.pp150-151
[198] Whitworth (1951) op.cit. Chapter XI. Whitworth expressed similar concerns about the dangers of octave couplers.

Of some use but not always included in designs, with some inconsistency in approach by different builders.

2.7.1 Primary couplers

The ability to couple manual divisions together and to couple manuals down to the pedals is virtually taken as read by all organists of British music in this period. However, there is no guarantee that it will be possible to couple any one manual to every other manual on any particular organ. Likewise, it may not always be possible to couple every manual on an organ to the pedals. There are at times limitations due to design and cost – this is particularly the case with mechanical and pneumatic actions.

On standard three-manual and pedal organs the couplers that would normally be found are as follows:

Coupler	Comment
Great to Pedal	To be found on virtually all organs – the exception might be Extension organs with only a few ranks where all possible permutations of rank and pitch are found on each division.
Swell to Great	
Swell to Pedal	
Swell to Choir	Likely but not in every case.
Choir to Pedal	
Choir to Great	Variable, particularly when the choir division is small and/or tonally insignificant when it might be seen as a waste of resources to include this coupler.

Illustration 2:26 Typical Primary Couplers

As highlighted earlier in mechanical action (see above) there are potential challenges with coupling, especially between manuals due to the additional weight that can prohibit rapid playing; also, the speech of the divisions might not be fully synchronised and this can affect the precision when playing.

2.7.2 Secondary couplers

These are more likely to be found on larger instruments and where the action more readily permits them to be incorporated, especially on pneumatic and electric actions. A particular type of coupler developed in the early part of the nineteenth century was the octave coupler, whereby pipes an octave either higher or lower than concert pitch can be played at the same time as the unison pitches. Initially such couplers worked between manuals only but later in the nineteenth century super-octave (commonly called simply *octave*) and sub-octave couplers affecting the same manual were to be found in many organs.[199] From the early part of the twentieth century it is noticeable that these octave couplers become increasingly common in British organs, with these devices often a necessity to compensate for poor tonal design, as more than one writer has admitted.[200] These examples relate to standard three/four manual and pedal organs:

[199] Thistlethwaite, N. (1990) *The making of the Victorian organ.* Cambridge: Cambridge University Press. p280

[200] Neal Smith, D. (1947) Organ at St Matthias, Richmond, Surrey. *The Organ* January Vol. XXVI no.103 p120. The organ at St Matthias had only up to 2ft. on the Great, a Swell with no 2ft. though it did have harmonics V, and extra pipes for the use of the octave couplers; Neal Smith noted that the player had to fake brightness by using the octave couplers.

Coupler	Comment
Swell octave	Musical concerns about the use of these include: • upsetting the balance between the registers • missing notes in chords • missing notes at the top and bottom of the keyboard range.
Swell sub-octave	
Swell unison off	This coupler can be useful if wishing to transpose a stop up or down an octave in conjunction with the two previous couplers. Some builders include an extra octave of pipes to accommodate this (most commonly only at the top octave because of cost and space considerations).
Choir and Solo octave/sub-octave/unison off	As above
Swell octave to Great	Included sometimes when the Swell octave/sub-octave couplers do not act through on the Swell to Great coupler
Swell sub-octave to Great	
Great to other divisions e.g. Choir	Very rare but not unknown; examples will be found on some large organs by Comptons.[201]
Great octave/sub-octave	Very rare

Illustration 2:27 Secondary couplers

2.8 Summary

This chapter has shown the range of actions, pistons and couplers that a player might well expect to encounter in British organs of the period 1945-1970. The types of action varied considerably throughout the period, and the strengths and weaknesses of mechanical, pneumatic and electric systems were discussed. With registration aids it was shown that the range of controls expanded in the period after 1945 but that there were considerable differences in approach, partly due to financial aspects and also to technological restrictions. The range of couplers types remained much the same in the

[201] e.g. Downside Abbey. See http://www.npor.org.uk/NPORView.html?RI=N05561

period 1945-1970 but it was noted that when performing upon organs with restricted tonal schemes players often had to rely on octave and sub-octave couplers which inevitably affected the clarity of music of a contrapuntal nature.

The next chapter continues with mechanical aspects, focusing on swell boxes and console design.

3 Mechanical aspects (part 2)

3.1 Introduction

This chapter is a continuation from chapter 2 (mechanical aspects) and focuses on swell boxes and console design.

As a means of controlling dynamics on an instrument the swell box is unique in the musical world and, as will be shown, there is considerable variety of design and usage. In order to perform on an organ the player needs to master the organ console, with the variety and complexity of instruments presenting notable challenges to the serious musician.

3.2 The swell box – introduction

The *swell* is a generic term used when all (or occasionally a selection) of the stops from one manual are enclosed in a box, restricting the egress of sound. One side of the box consists of louvres, akin to venetian blinds, and by opening and closing them the player is able to control the dynamic level of the division. Whilst the term 'swell' is most commonly related to the actual Swell division, in fact other manual divisions can be enclosed, according to the tastes of the designer and builder. The Choir division in the period 1945-1970 was commonly enclosed and when there was a fourth manual, most commonly the Solo division, this likewise was in most cases enclosed.

Compared with all other instruments this way of controlling dynamics could be considered somewhat primitive and there are critics of the organ who view it as inherently unmusical, but prior to its invention the means of obtaining dynamic contrasts on the organ were far more restricted, with terraced dynamics prevalent, utilising contrasting registrations on two more manuals. The use of the swell box as a

means of expression became very popular with both composers and players of the nineteenth and twentieth centuries, particularly in pieces of a more overtly romantic style, and for the music written in the period 1945-1970 the swell box is in most cases obligatory. However, organ composers from c.1960 writing in a neo-classical idiom were more ambivalent about the swell box, with inevitably some eschewing it when writing for the purer type of classical instruments.

The genesis of the swell box goes back to the eighteenth century, with possibly the first recorded example being that in St Magnus the Martyr, London Bridge in 1712 (Sumner[202], Williams[203]), with the idea likely to have been inspired by harpsichords where certain builders experimented with louvres placed above the strings to vary the dynamics. Early examples on the organ had a simple contrivance whereby a single piece of wood large enough to cover the opening in the box was moved up and down by a lever – this gained the term 'nag's head' apparently because the effect of the movement was seen as being akin to that of a horse's head moving.

[202] Sumner (1973) op.cit.p191
[203] Williams (1980) op.cit.p138

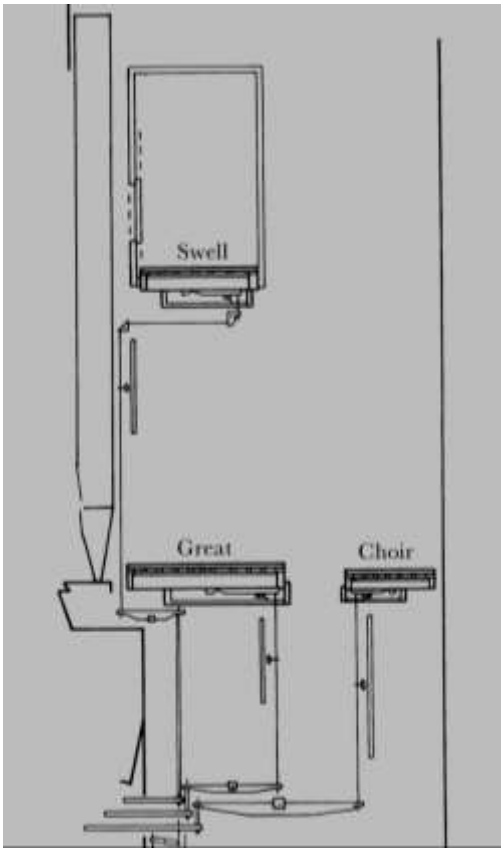

Illustration 3:1: An early version of a swell box[204]

This rather crude device developed into the more sophisticated system found today where shutters (or 'louvres') take up all or most of the front of the swell box, with instruments initially having horizontal shutters:

[204] Thistlethwaite (1990) op.cit.p28

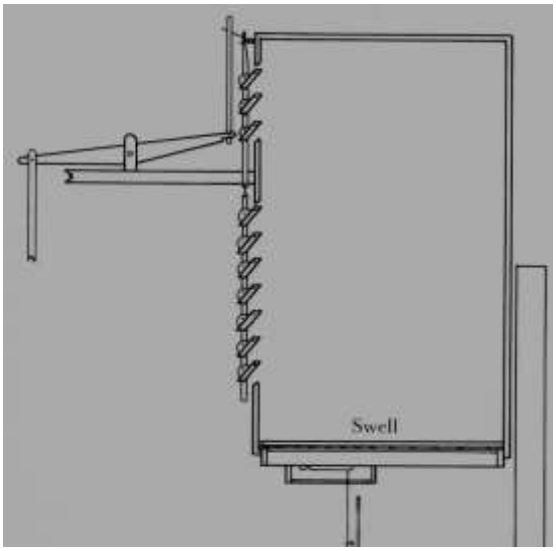

Illustration 3:2: Swell box with horizontal shutters[205]

Gradually instruments were built with shutters designed to operate vertically:

Illustration 3:3: Swell shutters fitted vertically
St Mary's Church, Woodford[206]
Organ by Grant, Degens and Bradbeer 1972

[205] Ibid.p233
[206] Rowntree, J. P. and Brennan, J. F. (1975) *The classical organ in Britain, 1955-1974.* Oxford: Positif Press. p136

By the beginning of the period 1945-1970 an organ in Britain would not have appeared complete without at least one division enclosed, and even new classical tracker-action instruments in the 1970s were seldom designed without any form of swell box[207] (this observation, however, does exclude small, one-manual continuo-type instruments and practice instruments).

The means of opening and closing the shutters of a swell box is not uniform in instruments of this period and this does raise issues concerning performance. The degree of control varies, together with the location on the console of the swell pedal, thus creating a wide range of sensitivity when it comes to making crescendi and diminuendi. The following factors have to be considered:

1. The type of control available to operate the swell shutters.
2. The location on the console of the controls to operate the shutters
3. The mechanism that connects the controls to the shutters
4. The degree of sensitivity of these controls

All of these factors have their importance but it is the means of controlling the shutters that most immediately affects the musical performance and these will be considered first, namely:

1. The trigger lever
2. The balanced swell pedal
3. Hand operated shutters

[207] Rowntree and Brennan (ibid.) identify only five instruments up to 1974 without swell boxes: St Ann's Nottingham (GDB); Coloma College RC Chapel (E.F. Walcher); Dartington College (R. Yates); St Paul's Girls' School (GDB); York University (GDB)

3.2.1 The trigger lever

The original method of controlling swell shutters on an organ was by a trigger pedal and it was not until the late nineteenth/early twentieth century that gradually this system was superseded by the balanced swell pedal. Two examples are shown: the first has only 2 positions: open or closed:

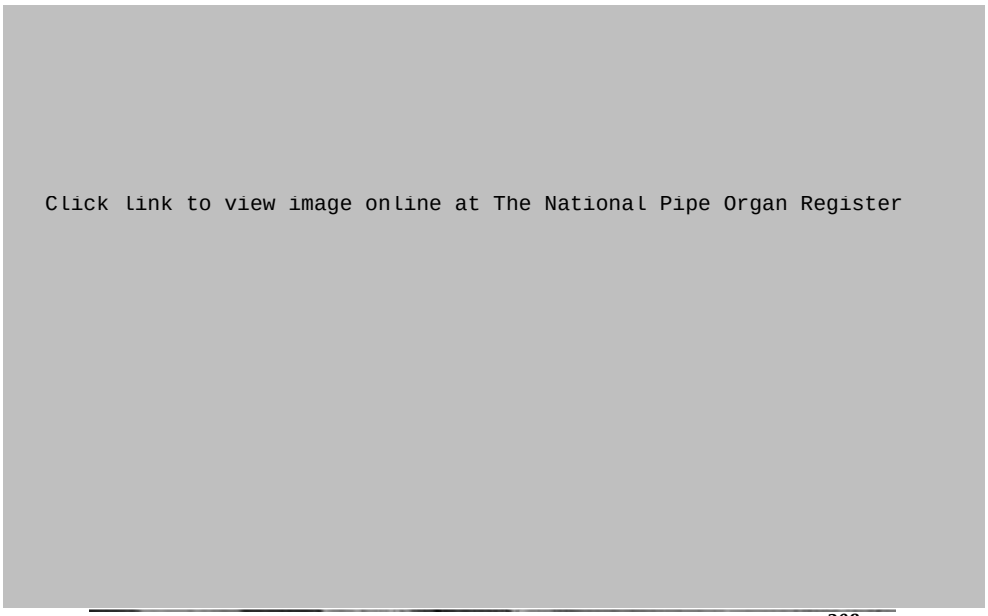

Illustration 3:4: St. Mary, Church End, Bedfordshire[208]
Organ by Nicholson 1873

The second example below shows one such example from an extant instrument built in 1890.

[208] http://www.npor.org.uk/NPORView.html?RI=D00325 accessed 12.7.10

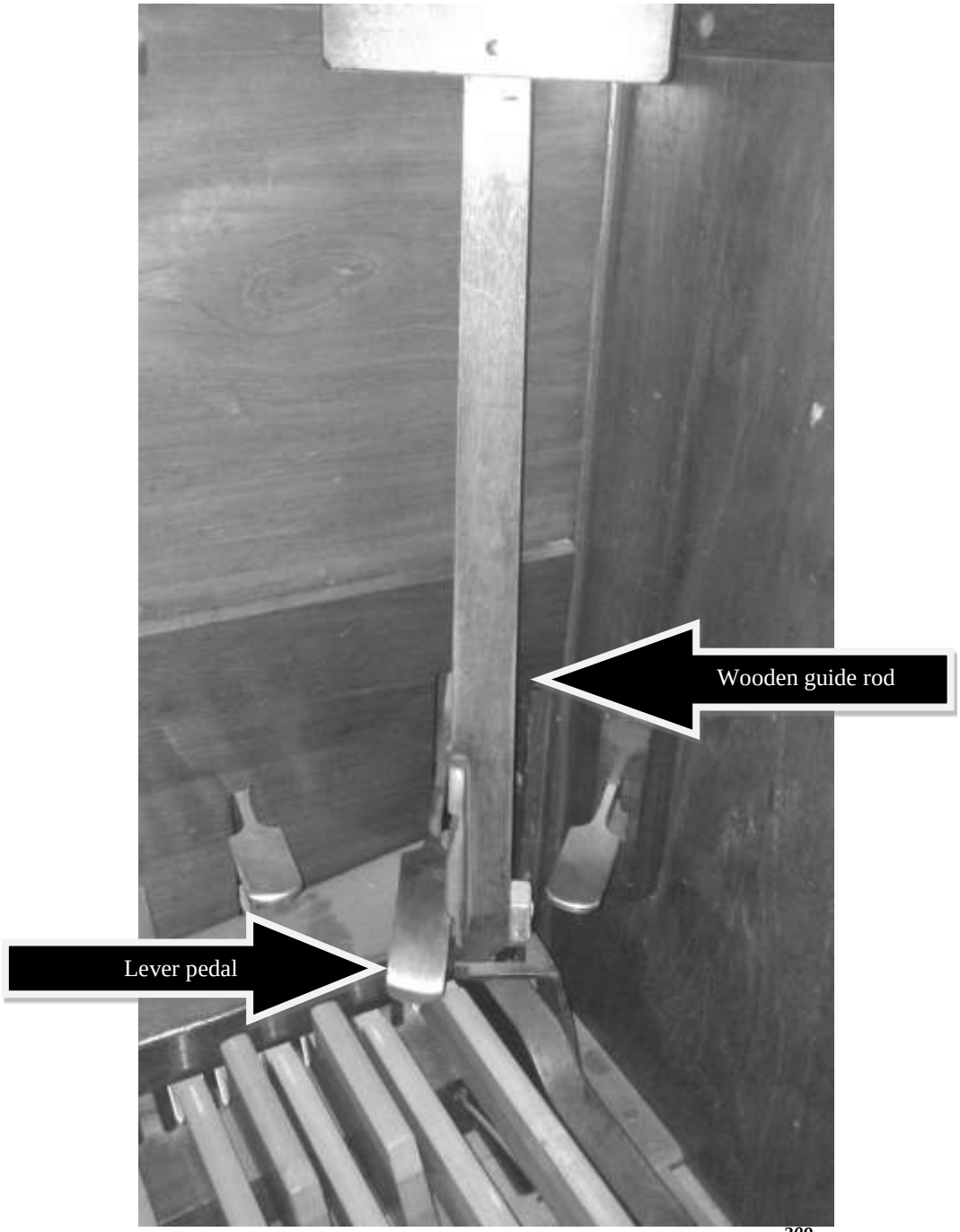

Illustration 3:5: Temple Speech Room, Rugby School[209]
Organ by Bryceson 1890

The metal (or in some cases, wood) lever pedal is connected to the horizontal swell shutters and due to the weight of the shutters the default position is closed, with the metal pedal rising up by approximately six to nine inches. By pressing down upon

[209] Photographed by the Author

the lever pedal the swell shutters are opened up and it is the wooden control that ensures the lever pedal remains in the fully open position. On some organs (as in this example) there can be at least one notch in an intermediate position, thus giving the player in this case three options of fixed dynamics:

1. Fully open (akin to *f*)
2. Half open (akin to *mf*)
3. Fully closed (akin to *p*)

The positioning of the lever pedal is normally to the far right of the console just above the pedal board, allowing unrestricted access to the actual pedal board (as in the Temple Speech Room's organ), although there are exceptions where the pedals are more centrally placed (see for example below the console from the 1900 organ in St Paul's Cathedral).

Illustration 3:6: St Paul's Cathedral[210]
Organ by Willis 1900

With larger instruments having three or more enclosed departments the space needed for the lever pedals could be considerable and this could have an impact for a player attempting to play in the top register of the pedal board:

[210] Plumley and Niland (2001) op.cit.p115

Illustration 3:7: St George's Chapel, Windsor[211]
Organ by Rothwell and Walker 1930

With this console the lever pedals protrude over the upper notes of the pedalboard and possibly restricted the dexterity of the player, although it must be noted that the number of pieces that use this upper register is somewhat small.

There are advantages and disadvantages of the lever pedal as a means of controlling the swell shutters:

Advantages:

- Sfzordandi effects are easily obtained due to the ease by which the player can depress the lever at a rapid speed.

[211] http://www.npor.org.uk/NPORView.html?RI=D02818 Accessed 13.7.11

- Diminuendi can quickly be obtained by kicking against the guide rod, thus releasing the lever pedal and thus letting the weight of the shutters quickly move to the closed position.

Disadvantages:

- The awkward position of the controlling lever to the far right of the console (in most cases) means only the right foot can operate it[212].
- The position on the far right of the console means that the left foot is often the only foot available for playing notes on the pedal board – if a lengthy passage demands a mix of crescendi and diminuendi then the right foot is totally tied up and cannot move even for a brief second to share notes with the left foot.
- On an instrument with no intermediary notch on the guide rod the player cannot leave the swell box half open or in any other position and therefore the dynamic range is more restricted, with only *forte* or *piano* available on that particular manual.
- The time taken to kick the guide rod to release the box can have an impact and slow down the speed of the dynamic changes.

The technique for operating this type of swell control is different from that of the more frequently encountered balanced swell pedal but nevertheless a number of organs in Britain still have this form of swell control. Throughout the twentieth century when organs were rebuilt the opportunity was often taken to replace lever pedals with balanced swell pedals (though see below in regard to recent trends in restoration

[212] In reality it is the right foot that is most commonly used to operate swell pedals, although with the balanced type of swell when centrally placed it is possible, and indeed sometimes necessary, to use the left foot.

work[213]), but smaller venues (e.g. country churches) with more modest instruments have possibly been restrained from converting to balanced swells due to limited funds and resources. The importance of these instruments needs to be acknowledged since many pieces of the period were written with their design in mind (see works by composers such as Thiman, Rowley and Lloyd Webber).

3.2.2 The balanced swell pedal

The balanced swell pedal is normally rectangular, approximately 12 inches by 5 inches, constructed either in wood or metal, pivoted and designed for a foot to rest on it. Unlike the lever pedal this pedal is designed to remain in whatever position it is moved to, without the need for the player to remain in contact with it. Research has not pinpointed a clear date of when the balanced swell pedal was introduced though it appears that certainly by 1892 there were some in existence.[214] However, this type of control was not universally adopted in the early twentieth century, with some builders continuing to use lever pedals even up to the 1930s.

The plates below show a range of pedals from different builders.

[213] In recent years some notable instruments have undergone restoration work in which it has been the aim to revert them back to their original concepts. The removal of balanced swell pedals, replacing them with the original lever pedals, has been one such facet. See e.g. Reading Town Hall (restoration by Harrison & Harrison in 1999)

[214] McVicker W. and Sumner G. (2001) The Swell pedal and *sforzando* in the latter half of the nineteenth century. *BIOS Journal 25* p98

Click link to view image online at The National Pipe Organ Register

Illustration 3:8: Methodist Church, Consett-Blackhill[215]
Organ by Rushworth & Dreaper 1922

Click link to view image online at The National Pipe Organ Register

Illustration 3:9: Organ of King's College, Cambridge[216]
Organ by Harrisons 1933
The three swell pedals in the middle control the respective enclosed divisions. The separate pedal on the right operates the general crescendo.

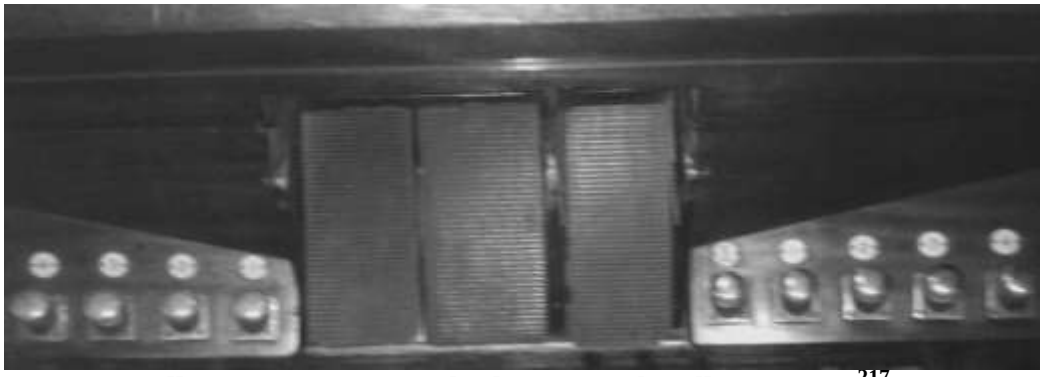

Illustration 3:10: Methodist Central Hall, Coventry[217]
Organ by Jardine 1949
Pedals (from right to left): general crescendo, swell, choir.

[215] http://www.npor.org.uk/NPORView.html?RI=G01362 accessed 5.8.09
[216] http://www.npor.org.uk/NPORView.html?RI=N05194 accessed 5.8.09
[217] Photographed by the Author

For a balanced swell pedal to remain in whatever position is desired by the player the organ builder has two options:

- *Either* to add counter weights to the horizontal swell shutters so that the shutters could be moved to any position and remain there
- *Or* to design the swell shutters so that they opened vertically.

The former system can be problematic as there can be a feeling of unease with the heavy weight of the shutters 'fighting' against the counter weights – this is more likely to be encountered in older instruments which had originally a trigger lever and were subsequently converted to a balanced system. Swell pedals nowadays are centrally positioned but not all organs will have this – sometimes when organ builders converted an unbalanced trigger system to a balanced system they would simply place the new swell pedal in the same location as the trigger lever, i.e. to the far right, resulting in some of the problems noted earlier. There might well be good reasons for adopting this solution, the most common being that the mechanism connecting the pedals to the chests (either tracker or pneumatic) is in the way, with the cost too prohibitive to move it. The illustration below shows such a conversion from a lever pedal to a balanced swell pedal and where the builder has retained the original location:

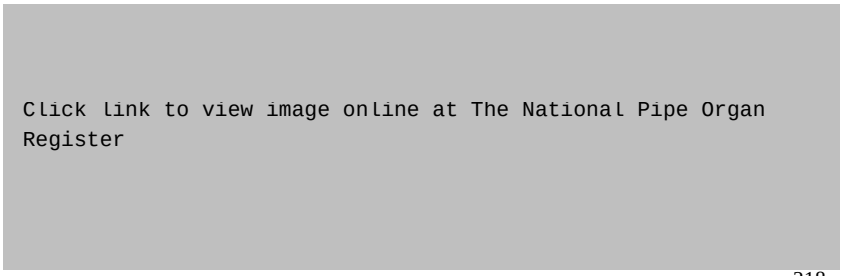

Illustration 3:11: St. Michael and All Angels, Sunninghill[218]
Organ by Gray & Davidson 1937

[218] http://www.npor.org.uk/NPORView.html?RI=D05278 accessed 5.8.09

This type of conversion is rather a mixed blessing since, whilst the player can keep the shutters in any position, there is the disadvantage of the left foot not easily being able to operate the pedal.[219]

The advantages and disadvantages of the balanced swell pedal(s) are:

Advantages:

- The positioning is normally central, or nearly, and therefore either foot can be used to operate it
- The swell shutters can be positioned as required for a specific dynamic and left in that position, allowing both feet to be used to play notes on the pedal board.
- The central position is quicker to access.

Disadvantages:

- If the shutters are particularly heavy and there is a mechanical connection between the shutters and the swell pedal then it can take time to get the pedal moving and thus the sensitivity is limited.
- With electric action operating the shutters (see below) the degree of control can be restricted, especially when opening the shutters from a fully closed position where the increase in volume is most sensitive and crucial.
- Because of the ease of access to the swell pedal there is a danger of the swell box being over-used in an unmusical manner.

[219] In a subsequent rebuild in 2008 (by Matthew Copley Organ Design) the swell pedal was moved from the extreme right-hand side to the more usual position just off-centre.

As organs grew in size and complexity so changes appeared in swell box mechanisms. Larger instruments tended to have more than one division enclosed and thus one can find two or more swell pedals on an organ – in some cases even a mix of balanced swell pedals and trigger levers though this combination is extremely rare nowadays.[220] It is the issue of how the swell pedals are actually connected to the swell shutters that is of importance – with the increased use of detached consoles and/or long distances from the console to the swell divisions a number of methods were developed to operate the swell shutters. In this period there are several types of mechanism that can be encountered:

- Mechanical In most circumstances the ideal system, in which the swell pedal is directly connected to the swell shutters by rods and pulleys. The player should normally experience a feeling of intimate connection with the shutters and the degree of control rests with the player. However, in cases where the console is located some distance from the actual swell box there has to be a long run of rods and pulleys and this inevitably must affect the level of sensitivity. One such example was the 1946-1949 rebuild of the organ in the chapel of Winchester College, where the main organ was at the west end of the building with the console at the east end, a considerable distance apart. The key and stop actions were electro-pneumatic but both swell boxes were connected to the console by rods – the swell boxes were very heavy to move and it was not possible to play expressively with any real sense of musical sensitivity. It must also be noted that the whole challenge

[220] http://www.npor.org.uk NPOR website accessed 12.6.12. All Saints, Hundon, Suffolk. 1916 Wadsworth; 1921 Hill, Norman and Beard. 'The swell pedals are unusual in that the Swell organ is controlled by a lever swell pedal and the Choir organ by a balanced one. The logic behind this is thought to be that a lever swell does allow for sforzando effects and generally much faster crescendi and diminuendi than a balanced pedal since there are no balance weights or friction devices to add inertia to the mechanism.'

of playing this instrument was further compounded by the time-lag due to the distance between the pipes and console.

- Hydraulic This system was one of many Victorian inventions,[221] was more of a novelty than a realistic mechanism due to its inevitably precarious nature, and rarely was encountered. The swell pedal operated a piston that forced water along a tube to another piston that moved the swell shutters.
- Electro-pneumatic This system uses a collection of small pneumatic motors to move the swell shutters, controlled by electrical means and thus allowing any distance between the console and the swell box. The illustration below shows the overall design which is known sometimes as a whiffle tree action. The number of pneumatic motors used varies quite considerably, dependent mainly on cost, and this can seriously affect the degree of sensitivity when operating the swell pedal. On some basic systems, such as small Compton extension organs c. 1940-1960 there would only be three or four pneumatic motors (called sometimes 'engines') and this resulted in a very stilted opening from *pp* to *ff* – however, when cost was not a prohibitive factor the swell shutters were operated by 16 stage engines (or occasionally more) and this inevitably resulted in a smoother, more sensitive action that faithfully replicates the control one would expect from a mechanical connection. Whitworth, writing in 1948,[222] argues that very good electro-pneumatic swell pedal control is possible but at a cost – he rightly points out that it is quite

[221] Hemsley (2005) op.cit.p262. Bryceson built a new organ for Rugby School Chapel in 1872. The builder's publicity pamphlet states that: *'..*the swell and echo louvres are controlled by plungers and tubes of water.'
[222] Whitworth (1948) op.cit.p147

unreasonable to expect a true crescendo and diminuendo from four or five doubtful and unsteady jerks on the swell shutters.

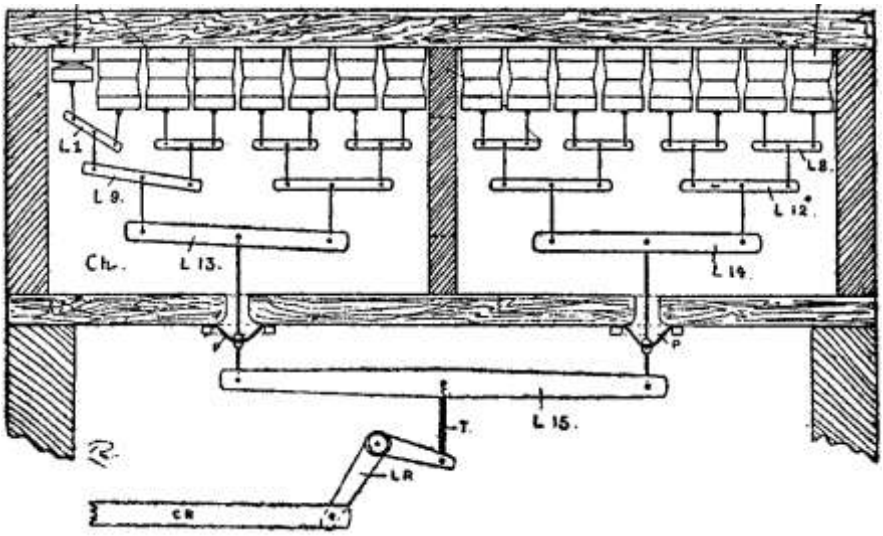

Illustration 3:12: Electro-pneumatic swell mechanism *(Whiffle tree)*[223]

- The Willis Infinite Speed and Gradation Swell Pedal This is a development from the conventional electro-pneumatic system of swell shutter control and Whitworth gives details of the mechanism.[224] A different approach is used - the swell pedal is sprung both ways so that when it is at rest the pedal always returns to 'neutral' i.e. 60% to the horizontal. The mechanism allows the player to open and close the shutters at varying speeds, related to how fast or slowly the player moves the swell pedal, but when released the swell pedal doesn't affect the swell shutters. An indicator is used to show exactly the position of the shutters (Willis, in fact, used a petrol gauge for this, of a type normally to be found in cars).[225] A very different approach to swell technique is needed here, although Whitworth claims it is easy to learn. At the time of Whitworth's book (1948) some major instruments had this

[223] Ibid. p148
[224] Ibid. p152
[225] Conversation with Matthew Copley (Organ builder) November 2011. Copley was an apprentice organ builder with the organ builders Henry Willis in the 1960s.

mechanism e.g. the cathedrals of St Paul's, Salisbury, Canterbury, Liverpool and St Giles, Edinburgh, but due to its unreliability and significant difference from the normal swell box controls it has fallen out of general use. A detailed analysis, and ultimately damning view of its shortcomings, was made in 2011 by Colin Pykett and it is understandable why this type of swell control has been consigned to history. [226]

3.2.3 Hand operated shutters

This is the least common form for controlling dynamics in organs of this period but nevertheless there are a few examples to be found. In such cases the pipes are enclosed as usual but the division is located just above the console in the position traditionally known as the Brustwerk[227], with a simple system of small doors that normally can only be opened or closed by hand. This is very much a classically inspired design and such divisions only started emerging in British organs in the 1970s, mostly outside the period of investigation. The very nature of the design precludes most forms of dynamic control during a performance although an assistant/page turner tall enough to reach over the player could manipulate the doors to a certain degree:

[226] Pykett, C. (2011) *Willis's 'Infinite Speed and Gradation' Swell Control System.* http://www.pykett.org.uk/speedandgradation.htm#PersonalOpinions. accessed 20.7.12

[227] The *Brustwerk* is a division found in organs of the seventeenth and eighteenth centuries. Such organs were built according to *Werkprinzip* (a German term) where each division of the instrument stands alone in its own case.

Illustration 3:13: St Peter's Church, Dunchurch[228]
Organ by Grant, Degens and Bradbeer 1972
Hand operated swell doors

Some of these Brustwerks with doors were designed with a link to a traditional swell pedal but the number built prior to the 1970s is very small. It could be argued that this type of mechanism harks back to the original 'nag's head' design of the early eighteenth century and that the degree of expressive sensitivity is somewhat limited. Below is one example built in 1974:

[228] Forsyth-Grant (1987) op.cit.p170

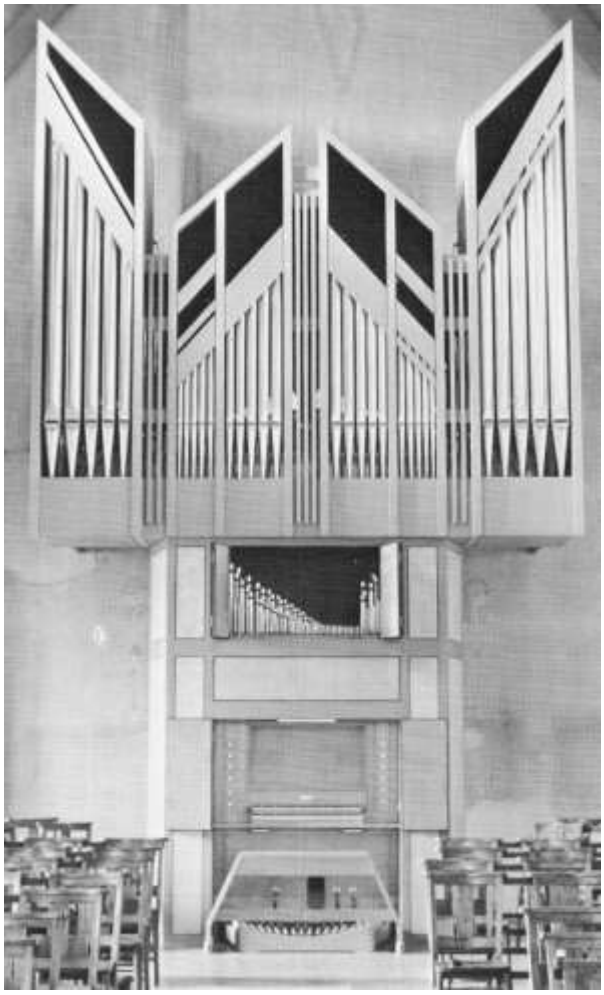

Illustration 3:14: St Mary's Church, Nottingham[229]
Organ by Marcussen 1974

3.2.4 Using the swell pedal

The previous sections have given details of the types of swell pedals and mechanisms that the player can expect to encounter in organs of the period. This section now considers practical challenges that can be found in the music of the period. With music for the organ written by composers with no practical knowledge of the instrument it is understandable that musical demands do not take into consideration what actually can be achieved but in the following three examples the composers were professional

[229] Rowntree and Brennan (1975) op.cit.p119

organists, each having achieved his FRCO diploma, with one of them considered to be the foremost recitalist of his age.

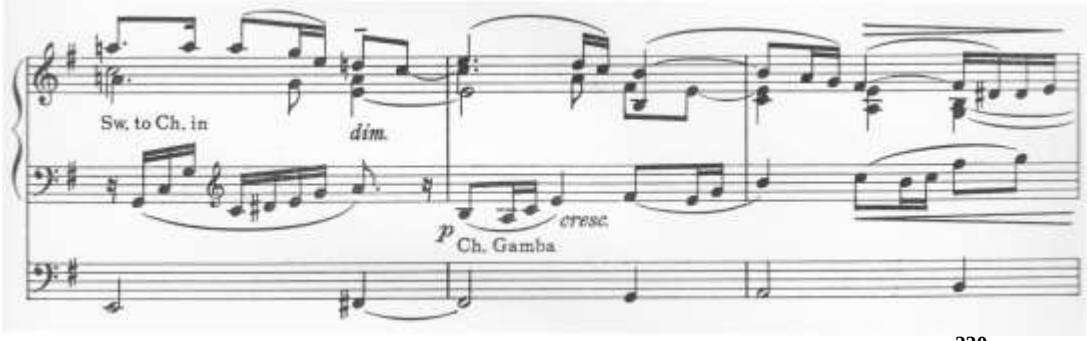

Illustration 3:15: *Three Lyrical Pieces (No.1)* by Tomlinson [230]

The pedal line is very straightforward and can easily be played by the left foot only, leaving the right foot to operate a swell pedal. However, the hands from bar 2 onwards are on separate manuals (the left hand is directed to be on the Choir, soloing against the accompaniment with the right hand on the Swell). In the 3rd bar the composer asks for a decrescendo on the Swell and simultaneously a crescendo on the Choir – with the one foot free only one of these dynamic changes is feasible.

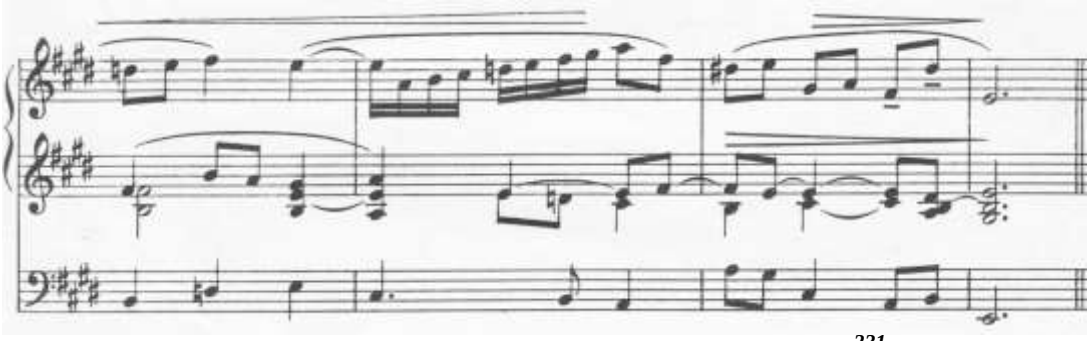

Illustration 3:16: *Tune in E* by Thalben-Ball[231]

The pedal line has been marked earlier 'legato' and in bars 1 and 2 the notes can be played by the left foot only (albeit with rather an awkward movement), leaving the right foot to operate the swell box for the solo line in the right hand. In bars 3 and 4 both feet

[230]Tomlinson, E. (1958) *Three Lyrical Pieces No. 1* London: Novello and Co. Ltd. p4
[231]Thalben-Ball, G. (1945) *Tune in E* London: Bosworth and Co. Ltd p4

are needed to play the pedal line to ensure a smooth connection between the perfect fifths, but whilst the feet are thus engaged the composer asks for a decrescendo in both the solo line and the accompaniment.

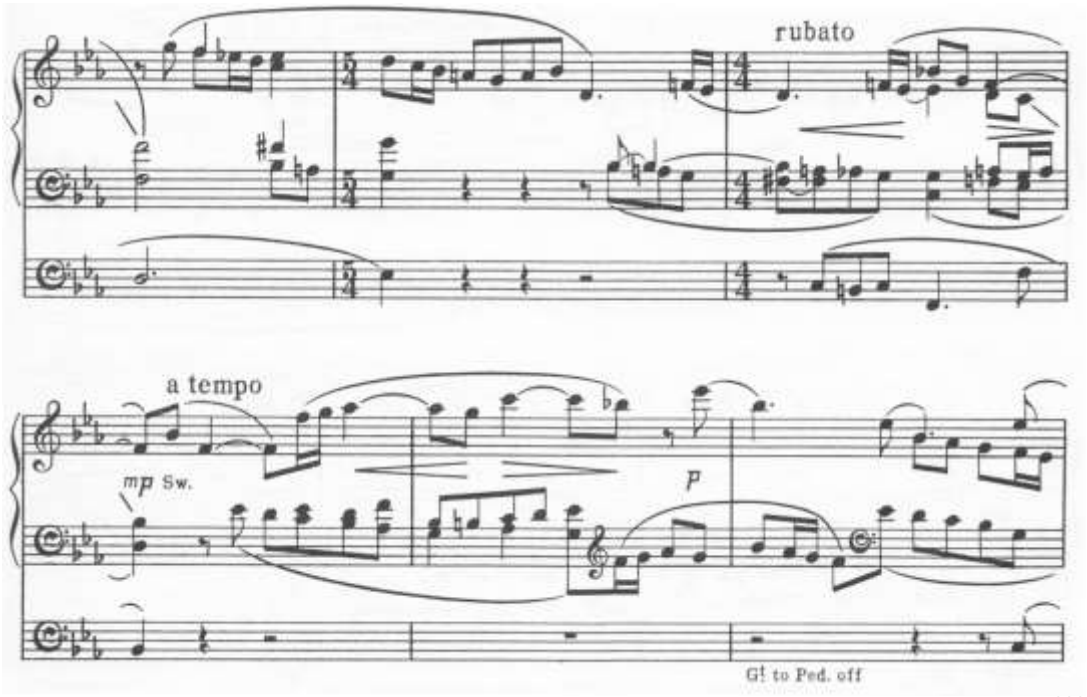

Illustration 3:17: *Six Interludes on Passion Hymns No.1* by Lloyd Webber[232]

The slurs over the pedal notes in bars 3 and 4 dictate that both right and left feet are needed to ensure a smooth line over the perfect fifths and octave. At exactly the same time as this the composer includes a rise and fall in dynamic on the manual and this is physically impossible.

3.3 Consoles - introduction

The console of an organ is the part of the instrument in which the keyboards, pedalboard and stops are placed, facilitating the control of the instrument. All other musical instruments (e.g. violin, piano, trumpet) have designs that are more or less standardised, even allowing for subtle degrees of variation depending on builder and

[232] Lloyd Webber W.S. (1963) *Six Interludes on Passion Hymns No.1* London: Novello and Co. Ltd. p3

period of construction, but with the organ there is a considerable range of console design, presenting the performer with unique and, at times, peculiar challenges. The literature available that focuses specifically on the topic of organ consoles is restricted and this section develops the work of John Norman[233] and Graham Bamber[234].

3.3.1 Physical dimensions

The distance between manuals can vary and in some designs of organs with three or more manuals the keyboards can be inclined to assist the player in reaching for the upper manuals – there are 5 manual consoles nowadays designed in such a manner (c.f. the organ in St Paul's Cathedral) but this was not always the case; the strain on the wrists playing at length on a 4th or 5th manual is considerable, although in reality the nature of the stops on these upper manuals (more commonly solo voices as opposed to chorus work) means that seldom or ever would a player attempt to play a lengthy contrapuntal piece on the Solo or Bombarde division. There are implications when performing pieces that demand a rapid move between keyboards. In the example below, the composer, Heathcote Statham, expects the leap from Choir to Swell and back again to be achieved at a very fast speed and if the organ used has the manuals further apart than usual then the player might have to slow the performance down – but in doing so this could affect the quicksilver effect required.

[233] Norman (1997) op.cit.
[234] Bamber, G.R. (1961) An approach to console design - I *The Organ* January Vol. XL no.159 pp126-139 and Bamber, G.R. (1961) An approach to console design - II *The Organ* April Vol. XL no 160 pp177-190

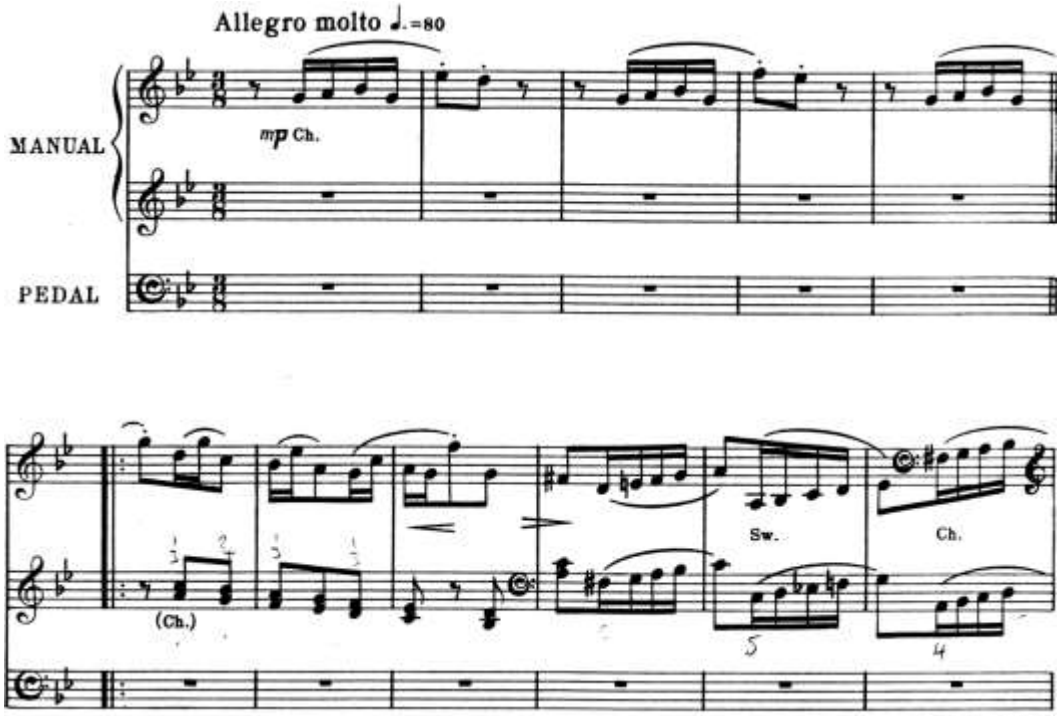

Illustration 3:18: Example of rapid manual changes[235]

Similarly, the distance from the player to the pedalboard can be crucial, since players vary in height and length of leg, although it is not the norm for adjustable benches to be available which would help in enabling a more assured performance. Through the influence of the Royal College of Organists from the late nineteenth century onwards some form of console standardisation came about, although subtle variations can be encountered. The illustration below, from a British organ builder, shows what the standard dimensions should be.

[235] Statham, H. (1960) A Sketch (Scherzando) from *The Colours of the Organ* London: Novello & Co. Ltd p7

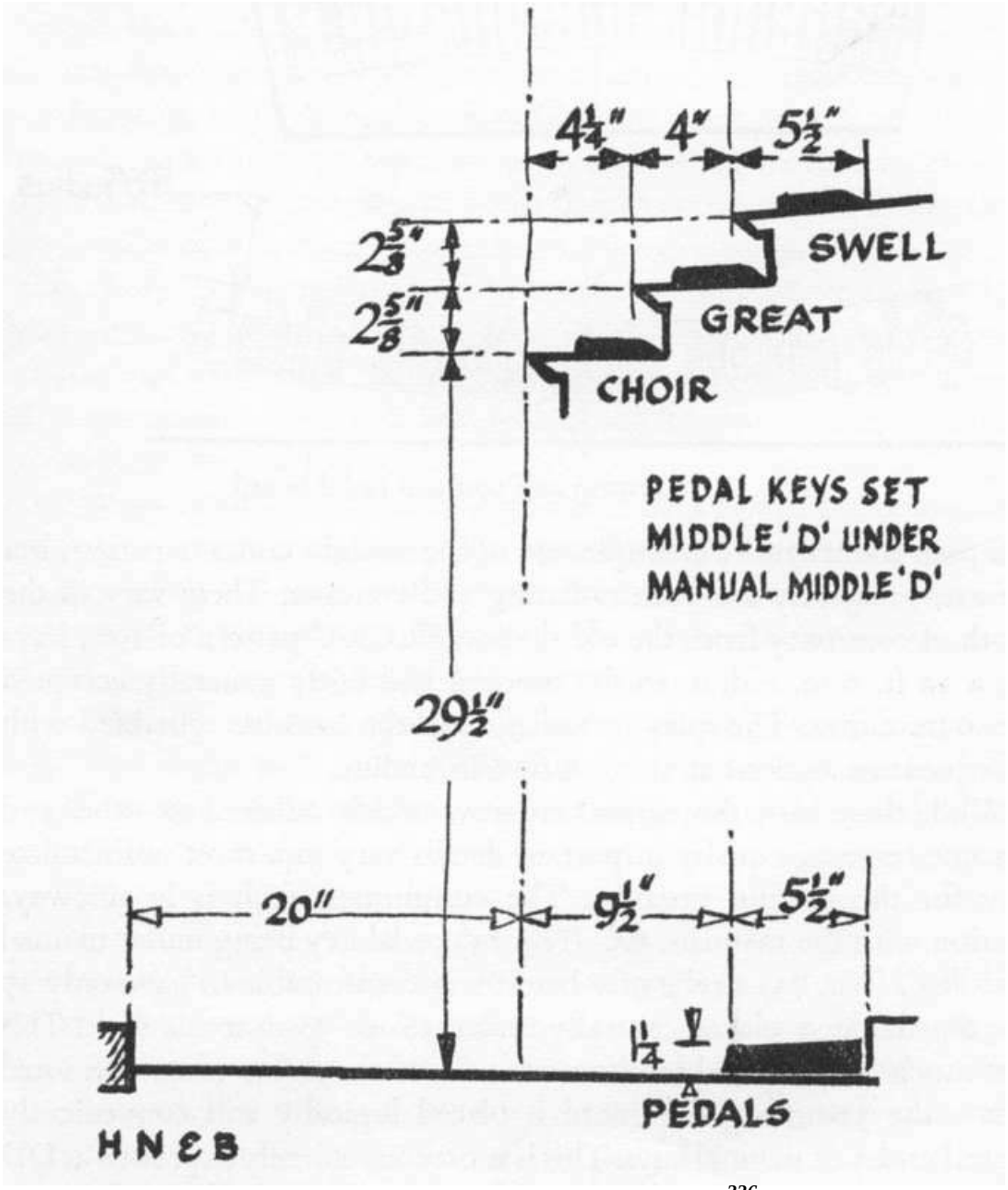

Illustration 3:19: Console Dimensions[236]
From the organ builders Hill, Norman and Beard

[236] http://www.organworks.co.uk/news/console-dimension accessed 3.5.09

3.3.2 Manual and pedal ranges

By the middle of the twentieth century the ranges of both manuals and pedalboards of the British organ had become standardised, although there some subtle minor variation is to be found:

Manual/Pedalboard	Range	Number of notes
Manual	C to g^3	56
Manual	C to a^3	58
Manual	C to c^4	61
Pedalboard	C to f^1	30
Pedalboard	C to g^1	32

Illustration 3:20: Manual and pedalboard pitch ranges

A limited number of composers have utilised the widest range of both manual and pedal in their compositions (61 and 32 notes respectively) but in such cases *ossia* suggestions are normally included for players using instruments with smaller ranges. Occasionally a piece will not have an alternative suggestion and such cases will necessitate alternative registration, with the passage in question played down an octave. In the example below the highest note of Ab is not feasible on a 56-note-compass manual, and with the composer specifying both hands to be played on a combination of 8ft. and 2ft. (poco *f*) the player ideally should play the whole section down an octave on a combination of 4ft. and 1ft. stops – theoretically easy but it must be noted that not many instruments of the period in fact have stops of 1ft. pitch.

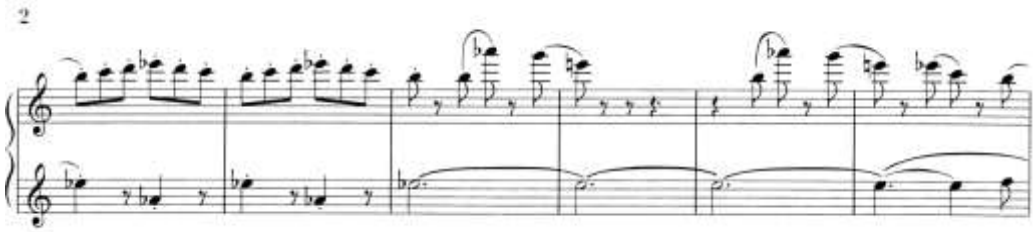

Illustration 3:21: Music outside manual range of 56 notes[237]

[237] Mews, D. (1974) Gigue de Pan from *Modern Organ Music Book 3*. Oxford: Oxford University Press

3.3.3 Pedalboards

The design of pedalboards has varied considerably since the earliest days of the organ. From simple devices arranged to allow a limited number of notes to be sounded the pedalboard has developed to reflect the demands of performers and composers. By the late nineteenth century/early twentieth century in Britain there were two main types of pedalboard design and these are the ones most likely to be encountered in the instruments of 1945-1970:

- The radiating and concave type:

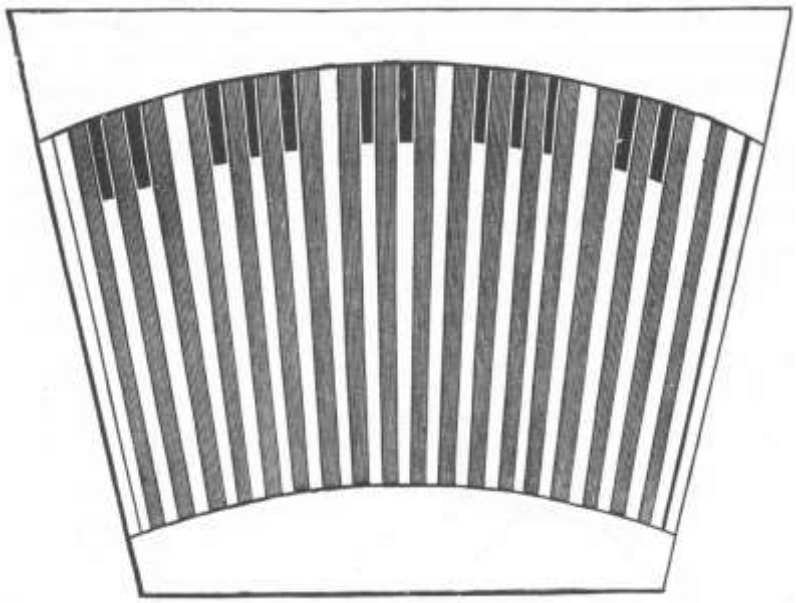

Illustration 3:22: Radiating and concave pedalboard[238]

This is often referred to as the RCO pedalboard, due its recommendation by the influential Royal College of Organists. This is the type to be found on the majority of instruments of the period.

[238] Stainer, J. (1877) *The Organ.* London: Novello and Co Ltd. p31

- The straight and flat pedalboard:

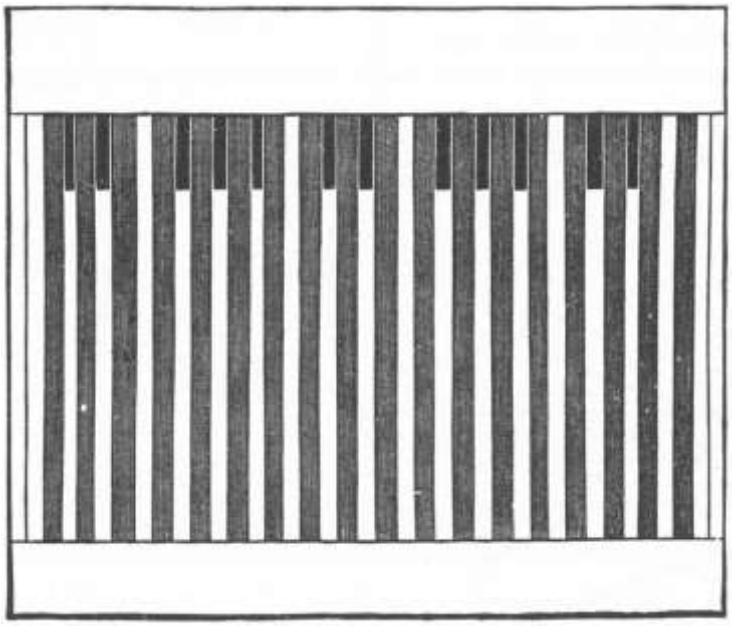

Illustration 3:23: Straight and flat pedalboard[239]

There are advocates for both designs of pedalboards (and certain builders have designed their own unique forms of pedalboards c.f. Kenneth Jones of Bray, Ireland) but for the performance of the British repertoire 1945-1970 it is possible to use either design in most cases. The only real issue that can affect performances of demanding repertoire is the depth of touch, and, most importantly, the weight needed to depress the pedals. This can be illustrated by an example from a virtuoso work by George Thalben-Ball. The rapid glissandi in both feet would only work if the resistance on the pedalboard were very minimal – in such cases a typical mechanical action could prove to be a possible obstacle to achieving the desired effect, needing instead an electric action with minimal pedal resistance. Additionally, the radiating and concave design would enable the player to move more rapidly to and from the extremities of the pedalboard.

[239] Ibid. p31

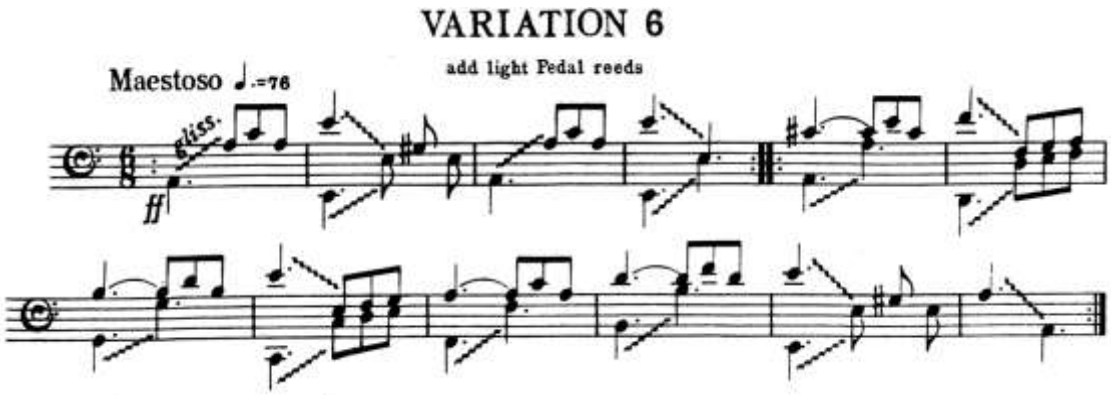

Illustration 3:24: Pedal solo requiring a light action[240]

3.3.4 Placing of thumb pistons and toe pistons

In chapter 2 the types of thumb and toe pistons, with their mechanisms, were considered. Here, the actual positioning of these accessories is considered. There is tremendous variety of approaches although certain major builders (e.g. Harrisons, Compton, Hill, Norman and Beard) did gradually adapt a house style in the twentieth century. The challenge for the player comes from operating the pistons, where split-second timing is often crucial for a musical outcome; poorly placed and cumbersome pistons can prove to be detrimental to an assured performance.

3.3.4.1 Thumb pistons

The positioning of the 1st divisional piston is not standardised, as shown in the table below:

[240] Thalben-Ball (1962) op cit. p3

Location	Builder	Date	Position of 1st piston	Number of divisional pistons
Sacred Heart, Wimbledon	J.W. Walker	1935	b^1	5
Downside Abbey	Compton	1931	$aflat^1$	8
St. Andrew, Biggleswade	J.W. Walker	1954	$c\#^{25}$	4
Coventry Central Hall	Jardine	1949	c^2	4
Methodist Church, Consett-Blackhill Durham	Rushworth & Dreaper	1922	d^2	3
Trinity College of Music, Mandeville Place, London	Hill, Norman & Beard	1930	d^2	3
Christ Church, Victoria Road, Kensington	Hill, Norman & Beard	1970	b^1/c^2	4/5

Illustration 3:25: Differences in thumb piston configuration

3.3.4.2 Examples of thumb pistons

Illustration 3:26: Sacred Heart, Edge Hill, Wimbledon[241]
Organ by J.W. Walker & Sons Ltd 1935
Generously spaced thumb pistons, with no reversible pistons

[241] http://myweb.tiscali.co.uk/jleadbeater/pictures.htm accessed 20.11.11

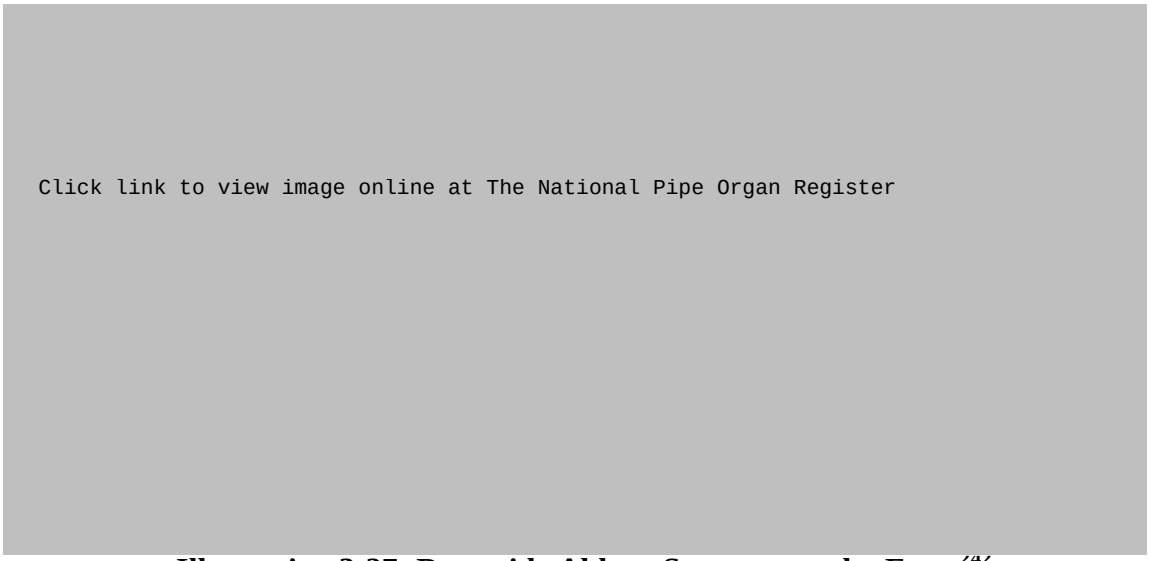

Illustration 3:27: Downside Abbey, Stratton-on-the-Fosse[242]

Organ by John Compton 1931

Well-spaced divisional pistons. Generals (divided) in treble end of Great and Swell. Reversible pistons for couplers are not very conveniently placed in bass end.

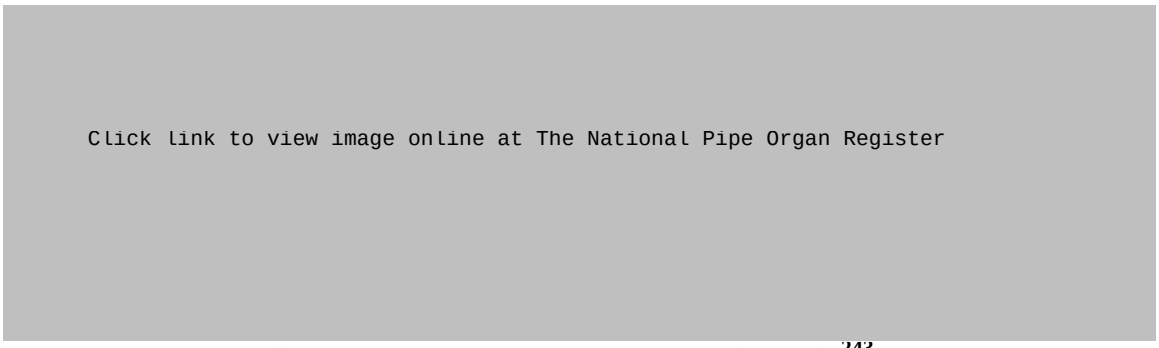

Illustration 3:28: St. Andrew, Biggleswade[243]

Organ by J.W Walker 1954

Well-spaced divisional pistons, with two reversible pistons

[242] http://www.npor.org.uk/NPORView.html?RI=N05561 accessed 5.8.09
[243] http://www.npor.org.uk/NPORView.html?RI=N09369 accessed 5.8.09

Illustration 3:29: Methodist Central Hall, Coventry[244]

Organ by Jardine 1949

Spacing rather wide. The keys are rather deep and have been cut away to allow room for the pistons. The two reversibles pistons for the couplers (Great to Pedal and Swell to Great) have been poorly positioned – high up on the treble end.

Click link to view image online at The National Pipe Organ Register

Illustration 3:30 St. Mary le More, Wallingford[245]

Organ by HNB 1962

Neatly positioned with two reversible pistons to the couplers

[244] Photographed by the Author

[245] http://www.npor.org.uk/NPORView.html?RI=E00188 accessed 5.8.09

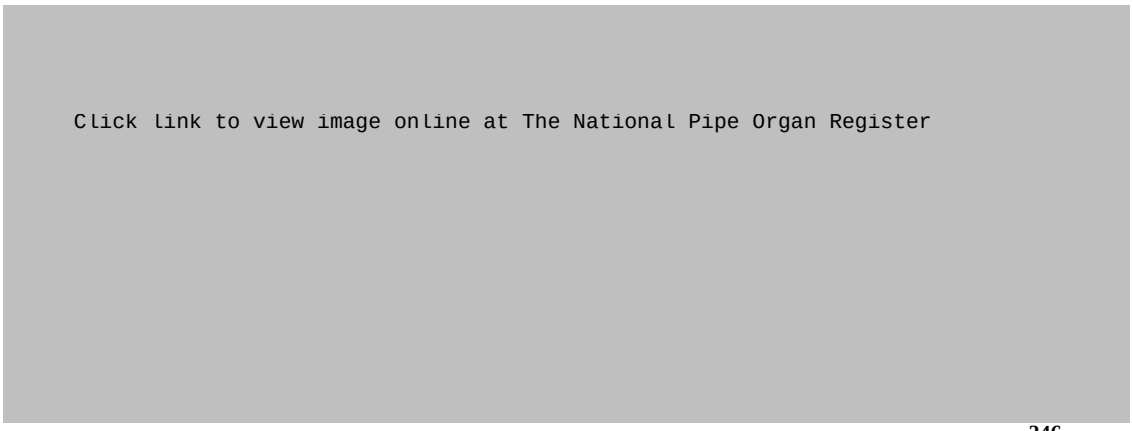

Illustration 3:31 Trinity College of Music, Mandeville Place, London[246]

Organ by HNB 1930

Well-spaced pistons, with larger than average piston heads.

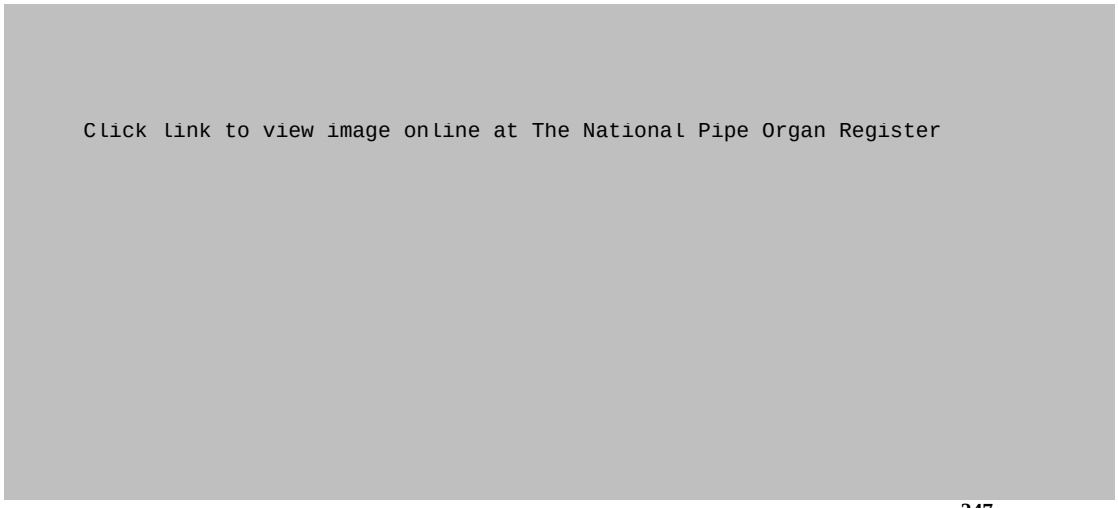

Illustration 3:32 Christ Church, Victoria Road, Kensington[247]

Organ by Hill, Norman and Beard 1970

Well-spaced divisionals and reversibles. The square pistons were a characteristic of this builder from the 1960s onwards.

[246] http://www.npor.org.uk/NPORView.html?RI=D04694 accessed 5.8.09

[247] http://www.npor.org.uk/NPORView.html?RI=K01164 accessed 6.8.09

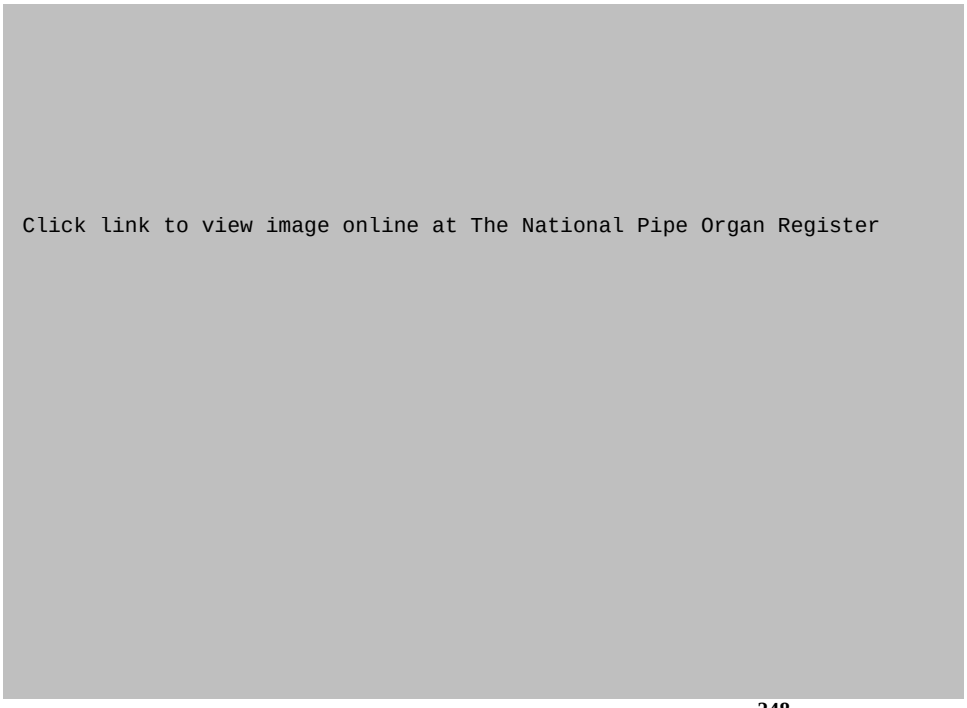

Illustration 3:33 St. Mary, Kings Worthy[248]

Organ by Boston of Winchester c.1962

Example of a poor design – widely spaced pistons, with the accidentals on the Great cut away to give room for the Swell pistons, causing some restriction to the player.

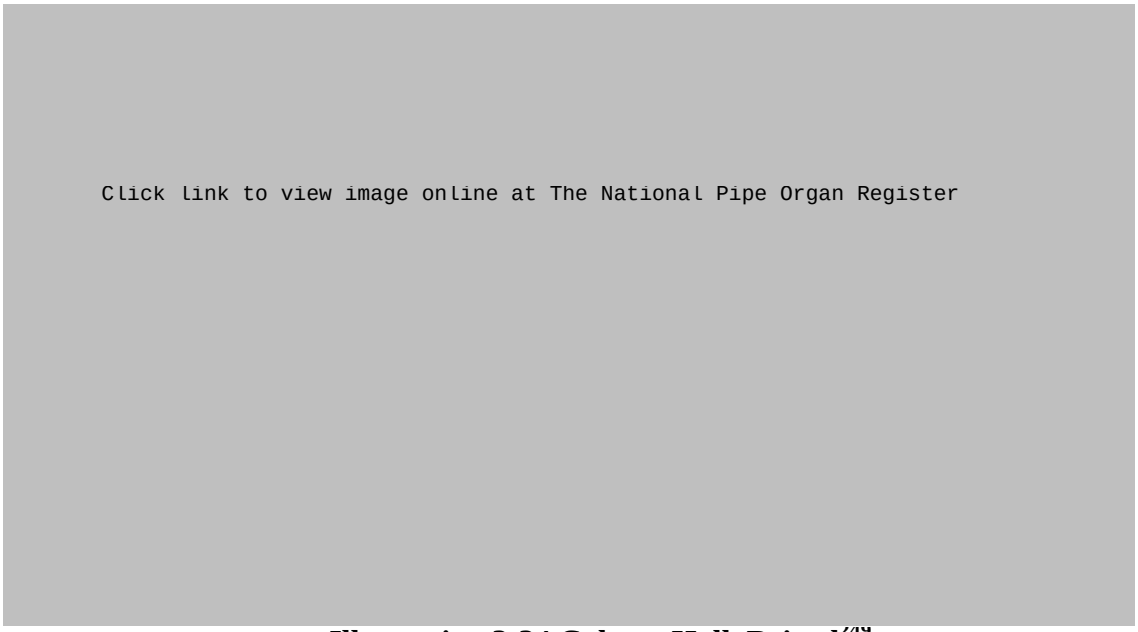

Illustration 3:34 Colston Hall, Bristol[249]

Organ by Harrisons 1956

A fully equipped console with a large number of pistons positioned neatly.

[248] http://www.npor.org.uk/NPORView.html?RI=N13018 accessed 7.8.09
[249] http://www.npor.org.uk/NPORView.html?RI=N03898 accessed 7.8.09

Occasionally a totally different approach to thumb pistons can be found, though such examples are very rare. The firm of Lewis developed key touches, which were operated by pushing down the small rectangular devices:

Illustration 3:35 Lewis key touches[250]

Three key touches per division, with two reversibles. The spacing is irregular and could restrict access to the keys, though the design does allow the player to use other digits than the thumb to operate.

The firm of Rothwells developed a unique form of stop control (discussed later in this chapter) and here the pistons are placed alongside the stops:

[250] Gray, C. (1998) 'The highest style of art'. An introduction to the life and legacy of T.C. Lewis (1833-1915) *BIOS Journal 22* p21

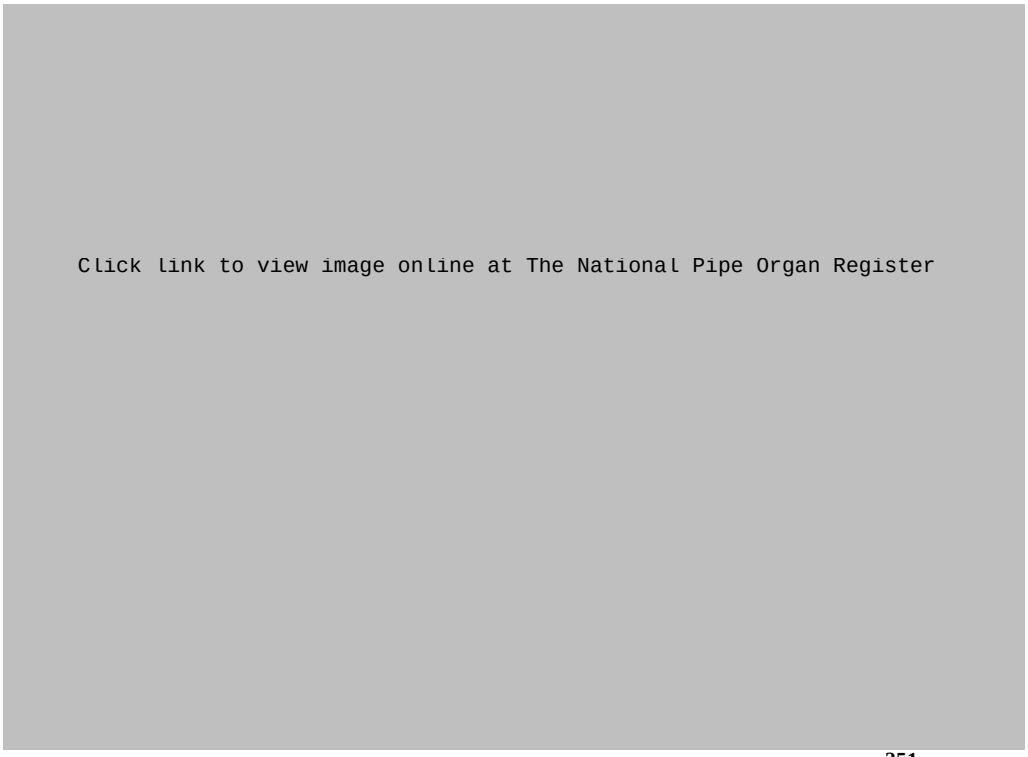

Illustration 3:36 Kensington New Church, Notting Hill[251]
Organ by Rothwell 1928
Each division has three pistons and one cancel piston (marked '0')

3.3.4.3 Toe pistons/pedals

As with thumb pistons the types of foot control were considered in chapter 2. The positioning of foot controls is even less standardised than that of thumb pistons; an additional challenge often encountered is when the pedals/pistons are not numbered or where the sequence from low to high varies. There is a general convention that the toe pistons/pedals to the right of the swell pedals(s) control the Great and/or the Pedal stops, with those on the left controlling the stops of the Swell, but this cannot be always assumed.

[251] http://www.npor.org.uk/NPORView.html?RI=T01008 accessed 7.8.09

3.3.4.4 Examples of toe pistons/pedals:

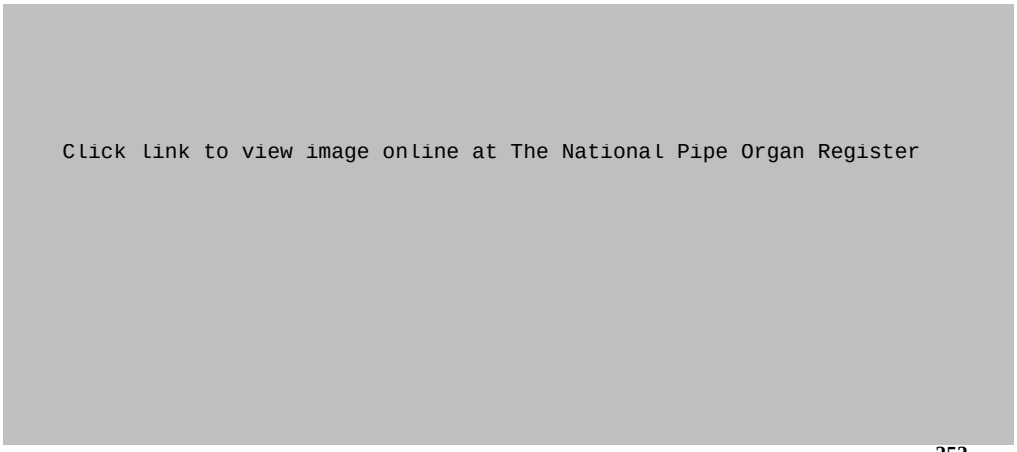

Illustration 3:37 Methodist Church, Bishop Auckland, Durham[252]

Organ by Harrisons 1889

Two toe pedals either side of swell pedal, along with a reversible lever for a coupler (Great to Pedal)

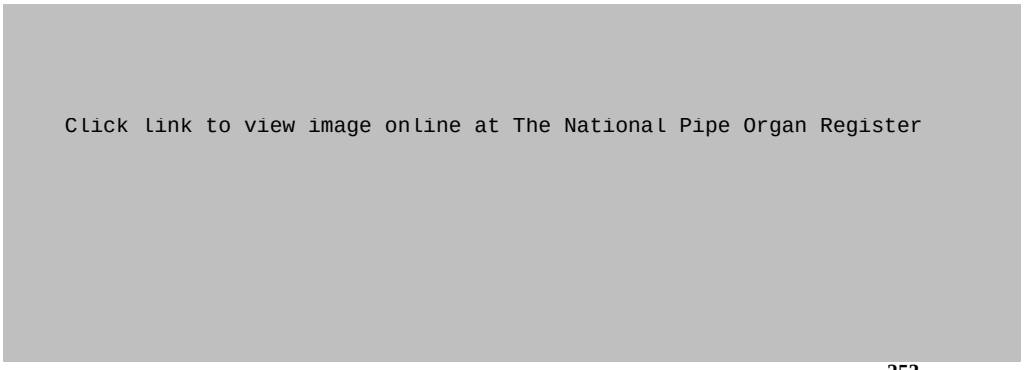

Illustration 3:38 St. Michael and All Angels, Sunninghill[253]

Organ by Gray & Davidson 1937

A generous number of pedals with no clear indication of which division they belong to, and with no numbering. The balanced swell pedal clearly has replaced the original trigger pedal and its position adds further challenges to the player.

[252] http://www.npor.org.uk/NPORView.html?RI=N15187 accessed 7.8.09
[253] http://www.npor.org.uk/NPORView.html?RI=D05278 accessed 5.8.09

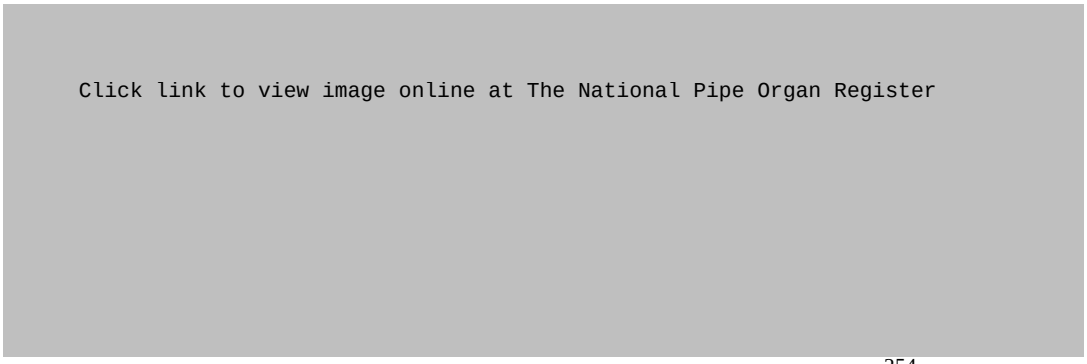

Illustration 3:39 Temple Church, City of London[254]

Organ by Rothwell 1923

A generous number of pedals. No numbering and no indication of which divisions are controlled by them.

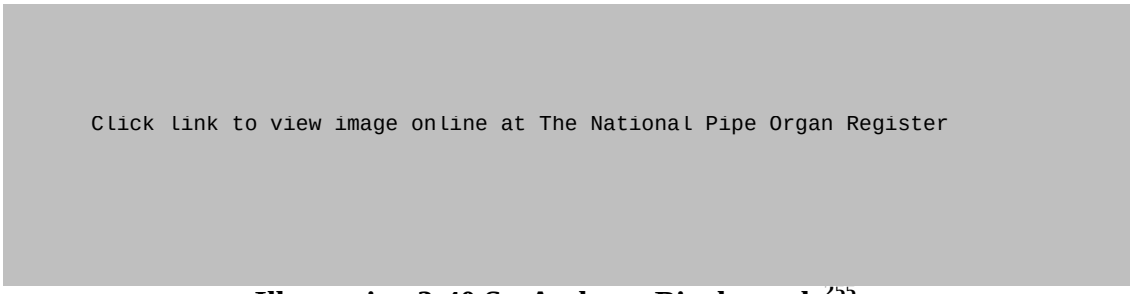

Illustration 3:40 St. Andrew, Biggleswade[255]

Organ by J.W.Walker 1954

Conventional toe pistons (or studs), neatly labelled (including divisionals names) and in a straight line. Reversibles for Great to Pedal positioned above divisionals for easy access.

[254] http://www.npor.org.uk/NPORView.html?RI=N17809 accessed 8.8.09
[255] http://www.npor.org.uk/NPORView.html?RI=N09369 accessed 5.8.09

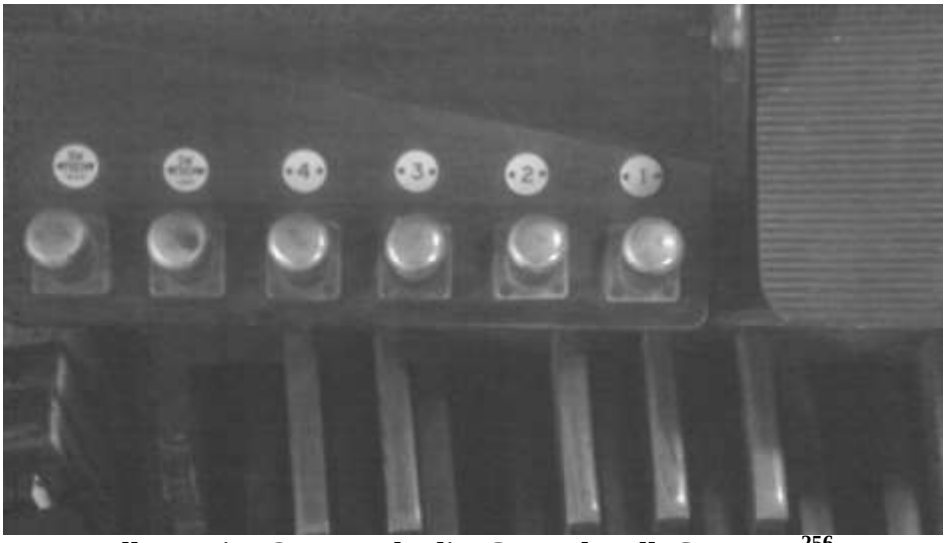

Illustration 3:41 Methodist Central Hall, Coventry[256]
Organ by Jardine 1949 - Left side

Illustration 3:42 Methodist Central Hall, Coventry[257]
Organ by Jardine 1949 - Right side

Well positioned and clearly marked divisionals with reversible for Great to Pedal close to Pedal divisionals. Other reversibles are, rather surprisingly, for three different tremulants, not couplers as is usual – perhaps this shows the taste of the designer/organist at the time of building.

[256] Photographed by the Author
[257] Photographed by the Author

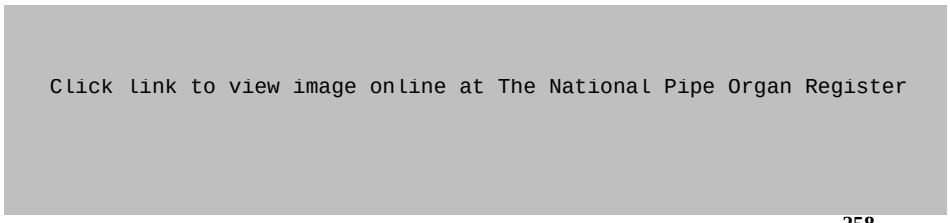

Illustration 3:43 City Temple, Holborn Viaduct, London[258]

Organ by J.W.Walker 1958

Use of two rows due to the fact that there are eight divisional pistons. The two reversible pistons for couplers are well placed. The top right one, though, is rather hard to access due to its position.

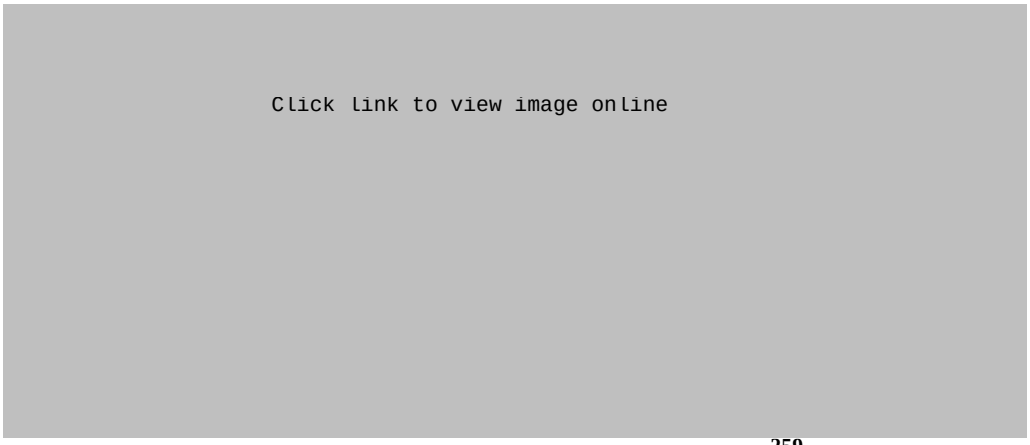

Illustration 3:44 Guildhall, Southampton[259]

Organ by Compton 1937

A reduced number of toe pistons on the right side due to the unusual number of swell pedals (four). The divisions are labelled but no numbers are used.

3.3.5 Stop control - introduction

The means of selecting ranks of pipes on the organ developed considerably during the latter part of the nineteenth century and early part of the twentieth century, with developments still continuing right up to the present day (see below for some more unusual designs since the 1970s).

[258] http://www.npor.org.uk/NPORView.html?RI=A00747 accessed 8.8.09
[259] http://www.cinema-organs.org.uk/uk%20Organ%20venues/southampton.html accessed 8.8.09

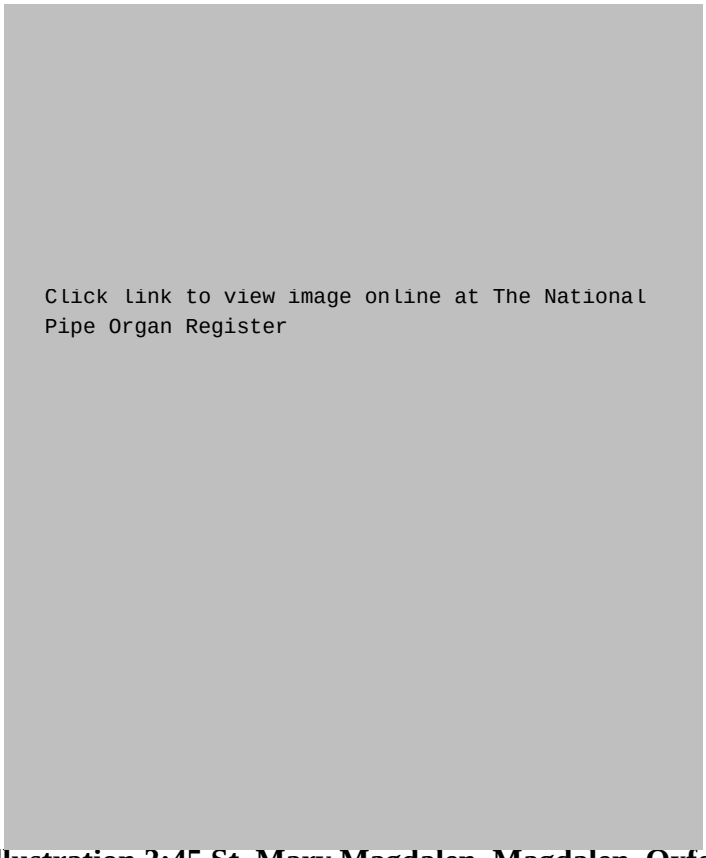

Illustration 3:45 St. Mary Magdalen, Magdalen, Oxford[260]
Organ by Matthew Copley Organ Design 2003

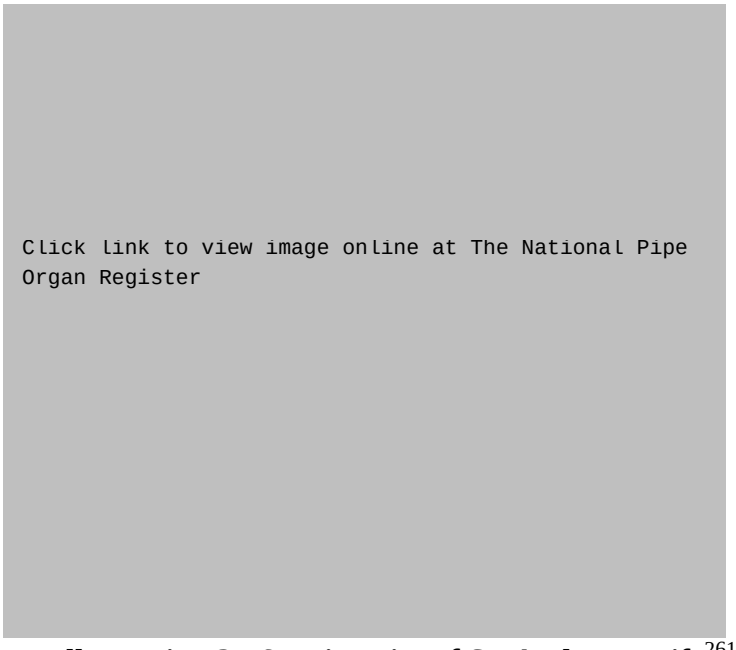

Illustration 3:46 University of St. Andrews, Fife[261]
Organ by Hradetzky 1973

[260] http://www.npor.org.uk/NPORView.html?RI=E00594 accessed 8.10.10
[261] http://www.npor.org.uk/NPORView.html?RI=A00522 accessed 6.9.09

In the period 1945-1970 there were two main forms of stop control, the drawstop and the tab, although, as will be shown, other styles were utilised by certain organ builders.

3.3.5.1 Stop control - drawstops

The drawstop is the original form of stop control on the organ and it is still the most common form to be found on instruments. By pulling out a drawstop the player enables a rank of pipes to be activated – with instruments having mechanical action for stop control (the majority up the middle of the nineteenth century and with a corresponding number up to 1970) this means that the drawstop is physically connected to the slider by a series of rods and therefore the distance that the drawstop needs to come out can be quite considerable (see illustration below). Additionally, the amount of energy needed to pull out and push in the drawstops can equally be considerable. It is with the advent of, firstly, pneumatic drawstop action and later electro-pneumatic and direct electric actions that both the length of movement and resistance of the drawstop were considerably reduced - this does have implications for performance when registering music by hand.

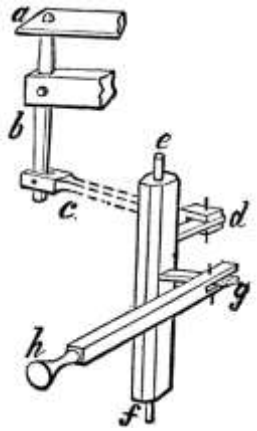

Illustration 3:47 Mechanical drawstop action

The drawstop (h) is connected to the slider on the chest (a) by a series of rods and pivots[262]

Irrespective of the ease by which the drawstops can be manipulated there are other considerations:

- The size of the drawstops themselves is not standardised and if the head is of a large design this can make it harder to grasp hold of more than one stop at a time.
- The position of the drawstops on the console varies. Some builders became more consistent in their approach during the early part of the twentieth century but a considerable amount of variation can be encountered.
- The jambs on which the drawstops are placed can either be at right angles to the keyboards (early instruments invariably are designed thus, with smaller instruments often built in a similar manner), or the jambs can be placed at an angle, most commonly at 45 degrees to the keyboards. The latter arrangement does enable the player to see with greater ease the names and details of the stops, plus the drawstops can be closer, enabling more rapid contact to be made.

[262] Sumner (1973) op.cit.p336

The following plates give examples of some types of drawstop consoles that would be encountered in the period 1945-1970.

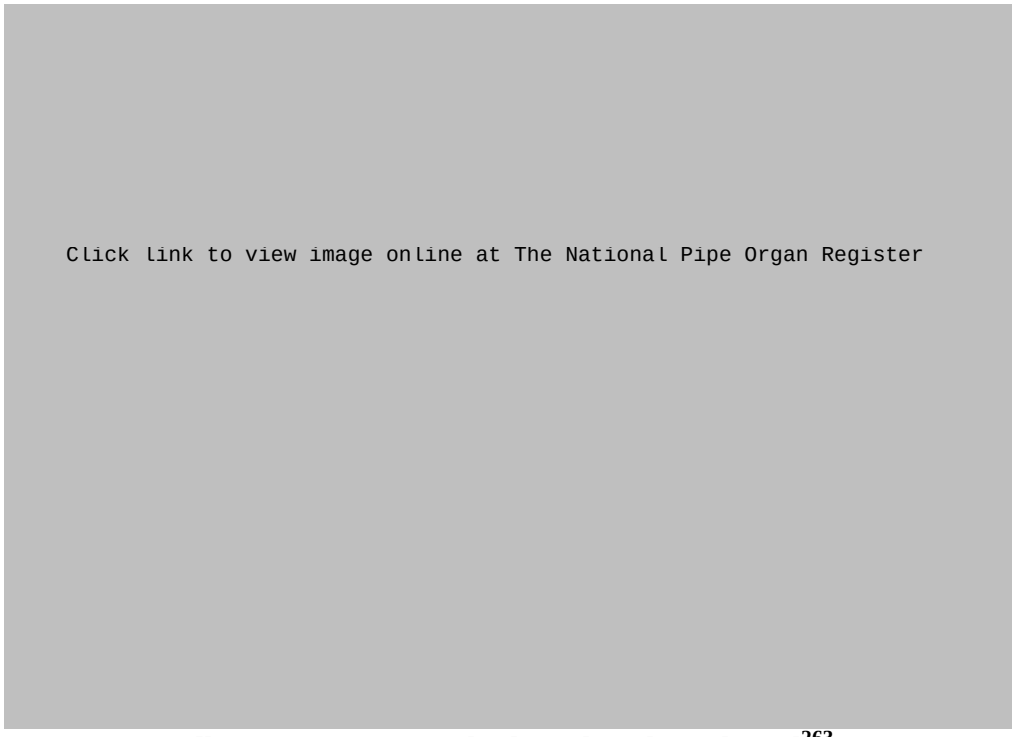

Illustration 3:48 Methodist Church, Halstead[263]

Organ by Bevington & Sons 1883

Single line of drawstops above upper keyboard. Only feasible with a very small instrument. Easy to identify stops, with a short distance to reach for the stops.

[263] http://www.npor.org.uk/NPORView.html?RI=D01032 accessed 8.8.09

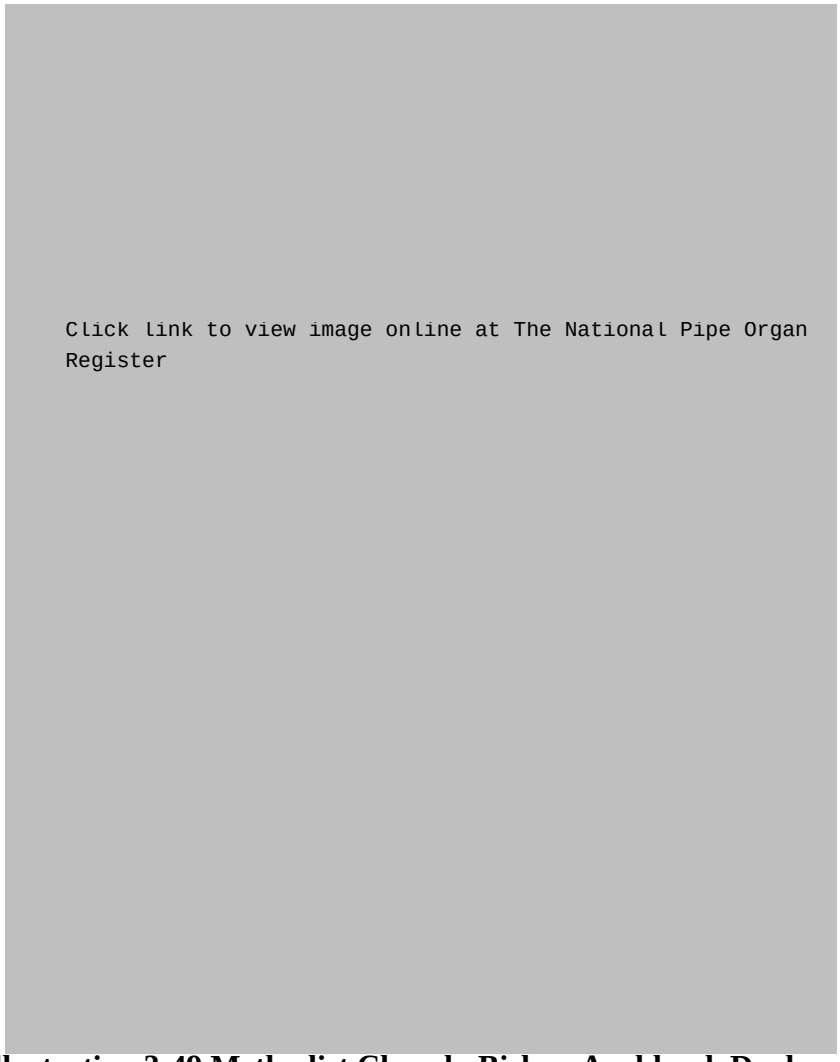

Illustration 3:49 Methodist Church, Bishop Auckland, Durham[264]

Organ by Harrisons 1889

Single line of drawstops, with jambs at 90 degrees to keyboards.

[264] http://www.npor.org.uk/NPORView.html?RI=N15187 accessed 8.8.09

Illustration 3:50 St. Mary, Hawksworth, Yorkshire[265]

Organ by Harrisons 1937

Single line of drawstops per division, with jambs at 45 degrees to keyboards

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[265] http://www.npor.org.uk/NPORView.html?RI=G00208 accessed 9.8.09

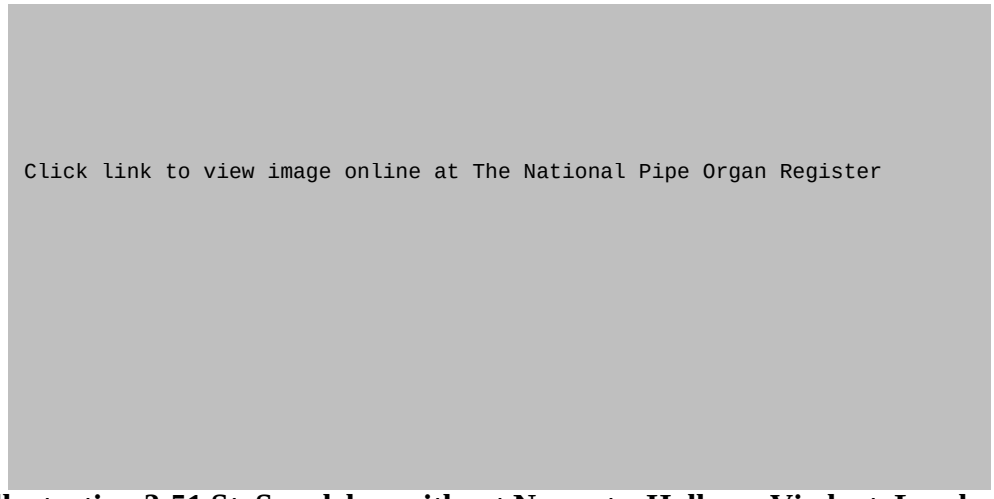

Illustration 3:51 St. Sepulchre without Newgate, Holborn Viaduct, London[266]

Organ by Harrisons 1932

Two lines of drawstops per division, with jambs at 45 degrees to keyboards.

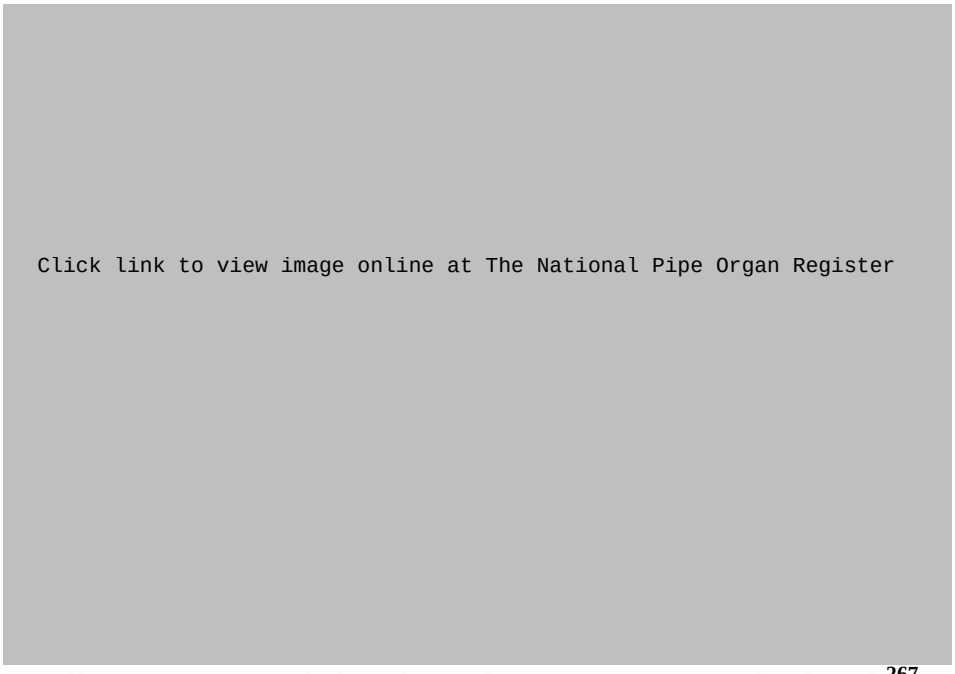

Illustration 3:52 Skelmorlie and Wemyss Bay Parish Church[267]

Organ by Binns 1905

Mix of single line and 2 lines of drawstops, with the couplers placed above the top manual. The stop heads are quite large.

[266] http://www.npor.org.uk/NPORView.html?RI=N17580 accessed 9.8.09

[267] http://www.npor.org.uk/NPORView.html?RI=C01057 accessed 8.8.09

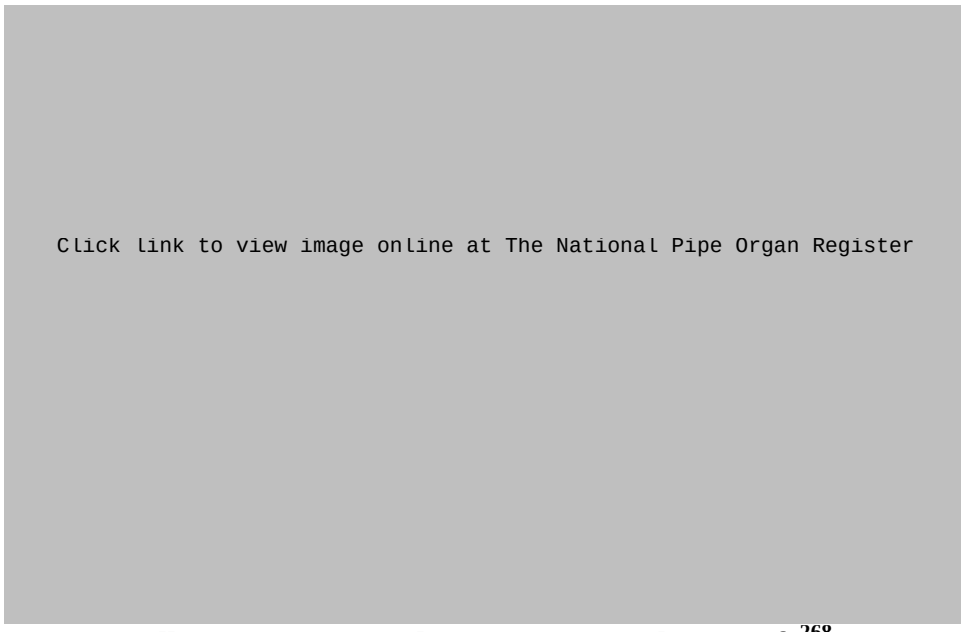

Illustration 3:53 Holy Trinity, St. Andrews, Fife[268]

Organ by Harrisons 1964

Larger instrument with two lines of drawstops per division, with jambs at 45 degrees to the manuals. The stop heads are of a more traditional size.

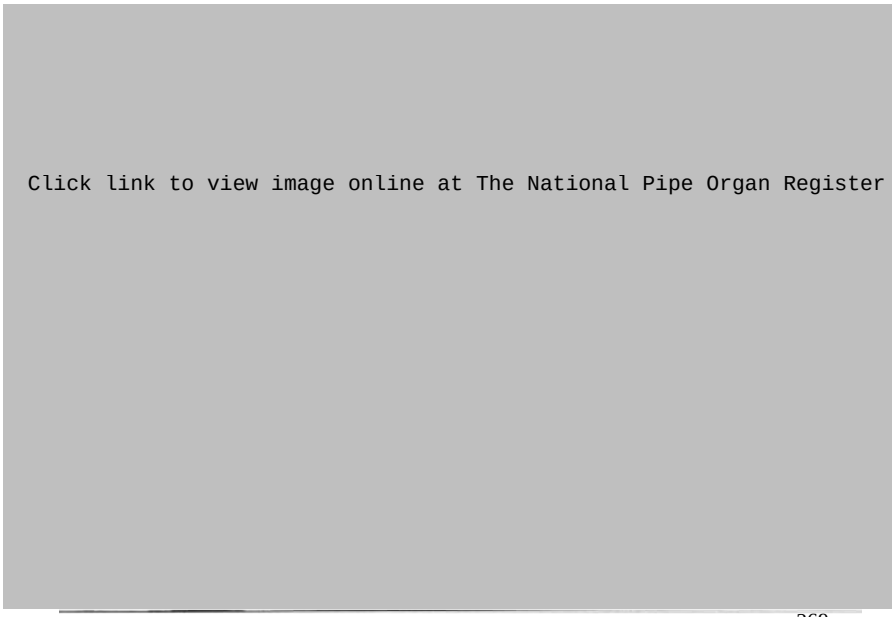

Illustration 3:54 King's College Chapel, Cambridge[269]

Organ by Harrisons 1933

Large instrument with two lines of drawstops per division in three sections per side, with jambs at 45 degrees to the manuals.

[268] http://www.npor.org.uk/NPORView.html?RI=A00533 accessed 8.9.09
[269] http://www.npor.org.uk/NPORView.html?RI=N05194 accessed 5.8.09

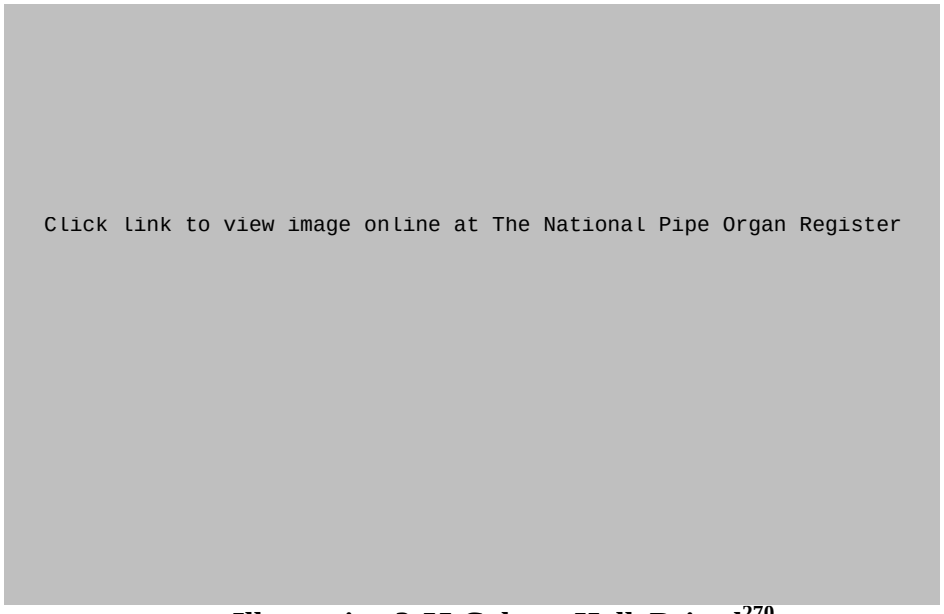

Illustration 3:55 Colston Hall, Bristol[270]

Organ by Harrisons 1956

Large instrument with two lines of drawstops per division in four sections per side, with jambs at 45 degrees to the manuals but curved.

Illustration 3:56 Hereford Cathedral[271]

Organ by Willis 1932

Here the lines are in pairs on each side. Very comprehensive collection of couplers above the top manual, keeping the jambs quite low. Note rocker tabs on Great and Swell.

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[270] http://www.npor.org.uk/NPORView.html?RI=N03898 accessed 7.8.09

[271] http://www.lavenderaudio.co.uk/organs/hereford/hwss.html accessed 8.9.10

Illustration 3:57 St John's Church, Upper Norwood, London[272]

Organ by Lewis 1912

A layout not very logical in its design. The stops are spread across in order to keep the console height to a minimum but the stops consequently are not easy to read.

[272] http://www.harrisonorgans.com/organs-2/hh-specifications-2/ accessed 8.9.09

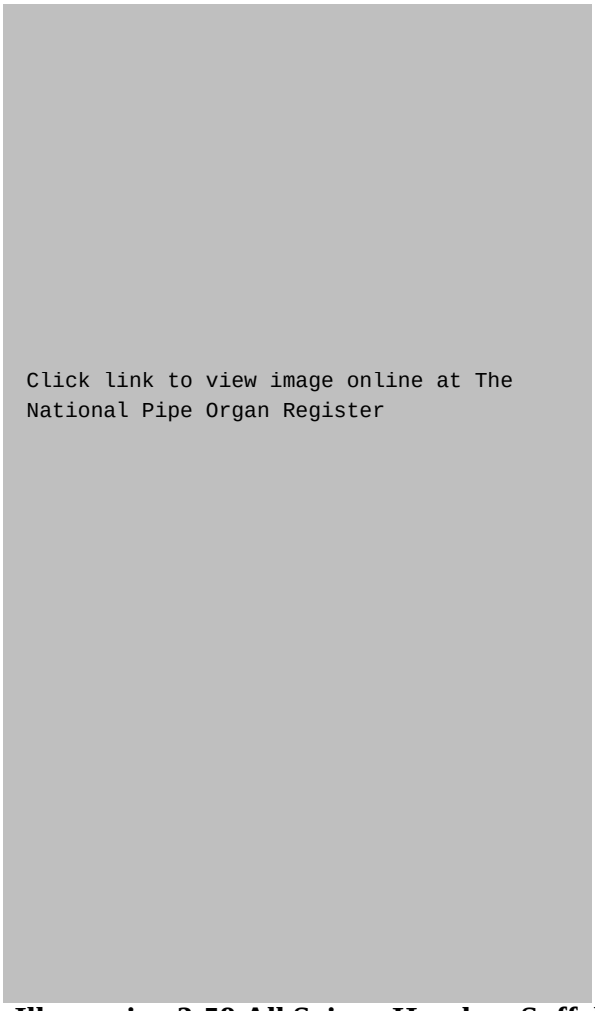

Illustration 3:58 All Saints, Hundon, Suffolk[273]

Organ by Wadsworth1916/HNB 1921

Example of drawstops placed in three columns, with the layout not clear – the departments overlap.

[273] http://www.npor.org.uk/NPORView.html?RI=N00894 accessed 7.8.09

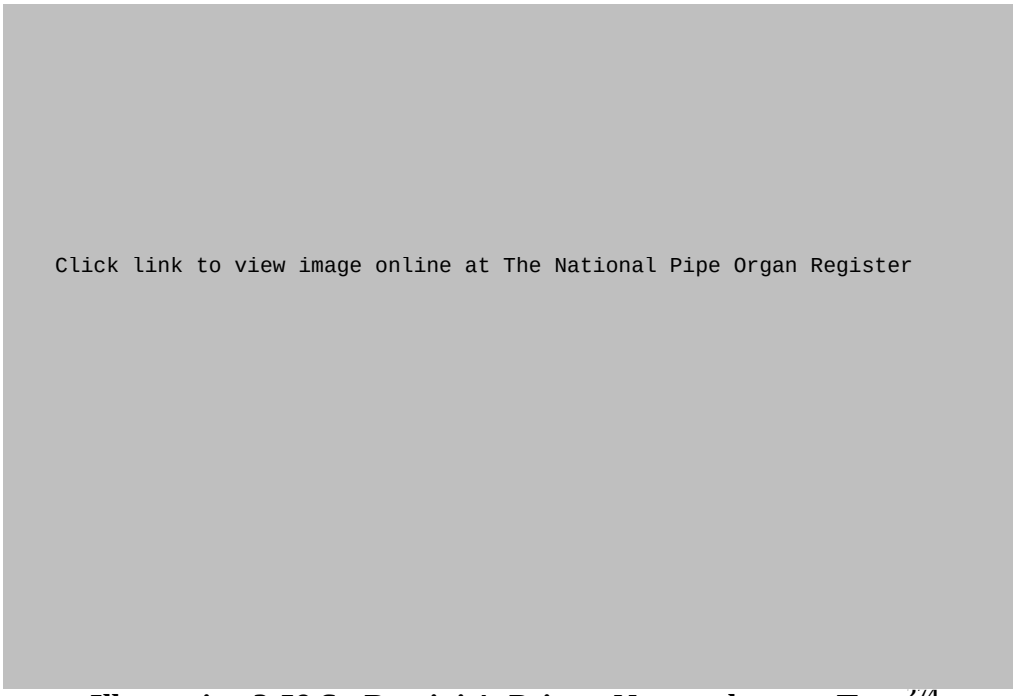

Illustration 3:59 St. Dominic's Priory, Newcastle upon Tyne[274]

Organ by Willis 1883

Example of drawstops with long draw length – such designs slow down the speed of changing registrations.

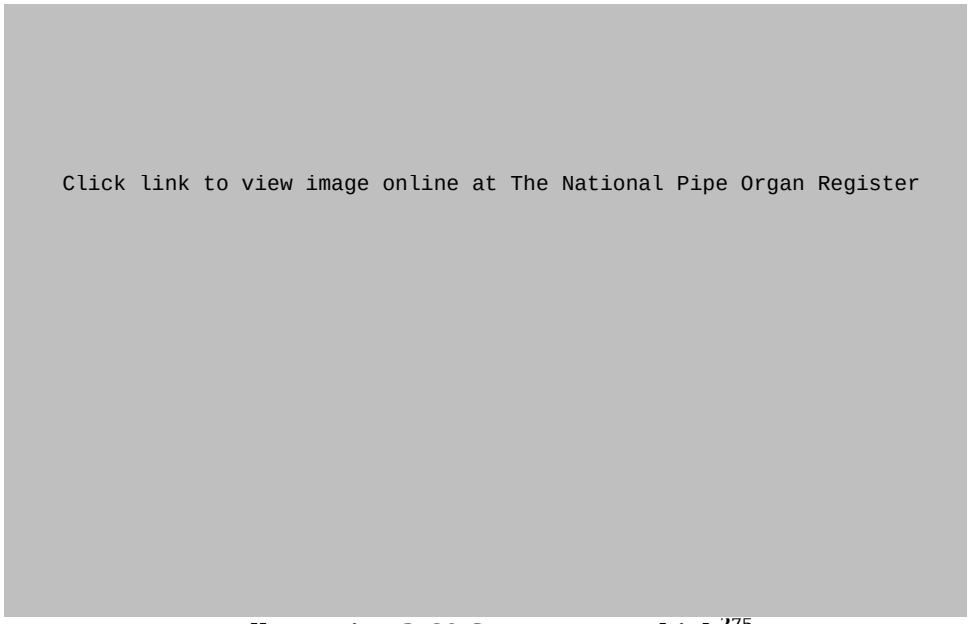

Illustration 3:60 St. Mary, Denbigh[275]

Organ by John Bellamy 1909

A rare example of unusual control of the couplers - 3 sets of on/off push-buttons (pneumatic) over Swell keys.

[274] http://www.npor.org.uk/NPORView.html?RI=N04102 accessed 8.9.10
[275] http://www.npor.org.uk/NPORView.html?RI=N11738 accessed 8.9.10

3.3.5.2 Stop control - tabs

With the invention of alternative actions to mechanical actions it became possible to have other means of operating stops on the organ. Pneumatic assistance was used not only for lightening the load of key actions but also for moving the sliders on wind chests. With such systems builders and players realised that there was no longer a necessity to have the traditional drawstops, since pneumatic or electrical assistance meant that the stop control simply had to switch on or off a remote motor and there was no need for the player to physically move the slider. Early attempts can be seen at the end of the nineteenth century, with Robert Hope-Jones one of the earliest pioneers of such a system. Below is one of his instruments from 1894:

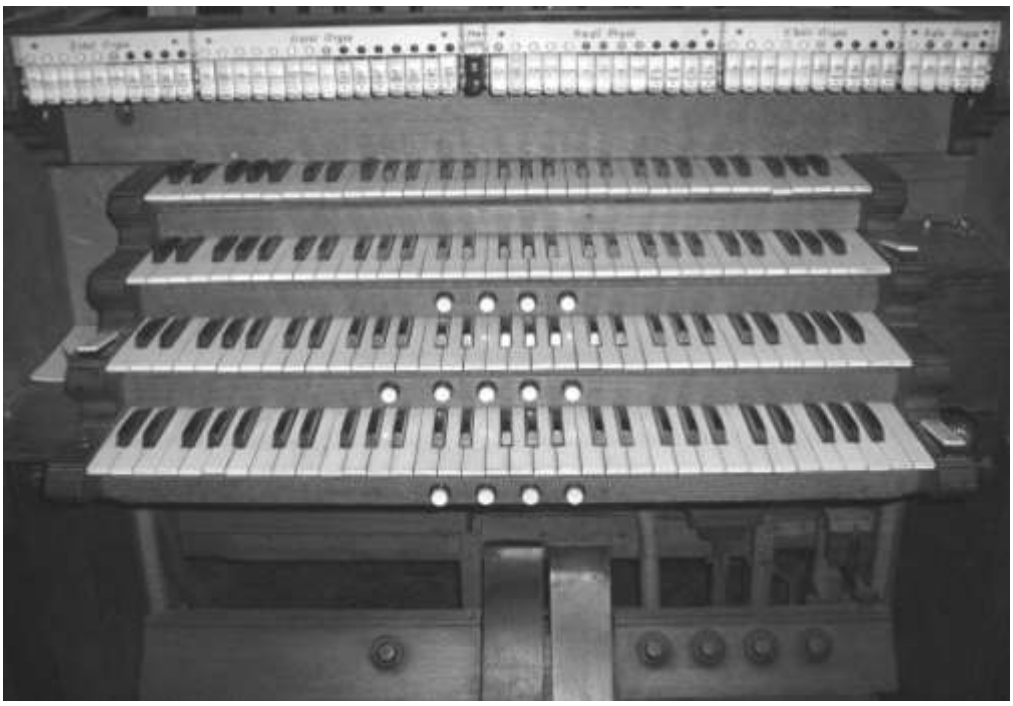

Illustration 3:61 St Paul's, Burton upon Trent
Organ by Robert Hope-Jones 1894
Whilst clearly a somewhat basic design, nevertheless this picture does show the general shape of consoles with stop keys that were to follow in the twentieth century, as opposed to the traditional consoles with drawstops. Stop tabs are normally associated with electric action organs but can also be found on instruments with pneumatic action.

There are clear benefits when tabs are provided for controlling stops:

- They are light to operate
- The movement required for operating them is very minimal
- It is easy to select a sizable number of stops with one hand
- Often all of the stops on the instrument are positioned above the top manual and thus are easy to read and locate
- With double touch cancelling one solo stop can be quickly selected whilst all of the other stops on the division are cancelled

The following plates give examples of some types of stop tab consoles that would be encountered in the period 1945 to 1970.

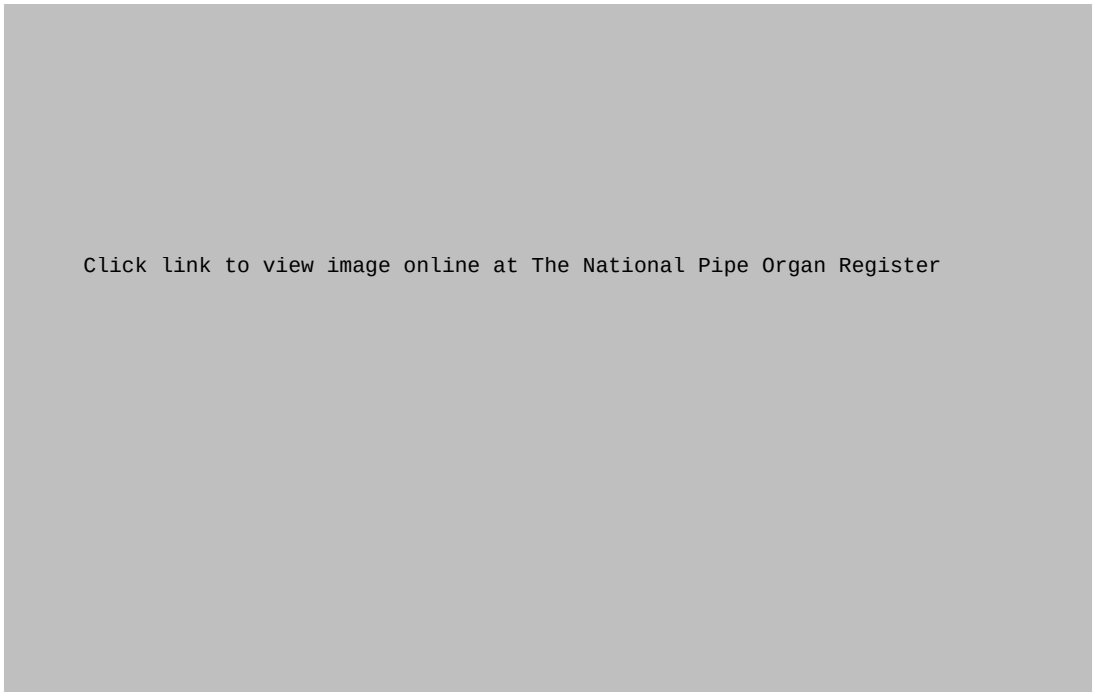

Illustration 3:62 St. Peter, Thundersley, Essex[276]
Organ by J.W. Walker 1966
A simple design with stop tabs in one line. The three divisions (Great, Swell and Pedal) are clearly marked.

[276] http://www.npor.org.uk/NPORView.html?RI=H00254 accessed 8.8.09

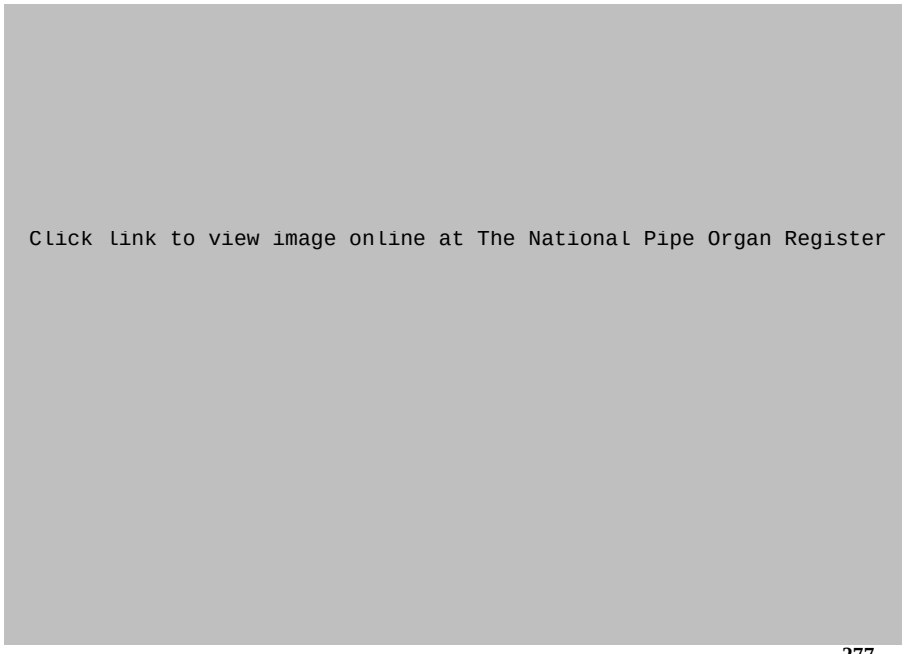

Illustration 3:63 Christ Church, Church Crookham, Fleet[277]

Organ by John Compton 1938

A simple design, with the couplers separated from the respective divisions.

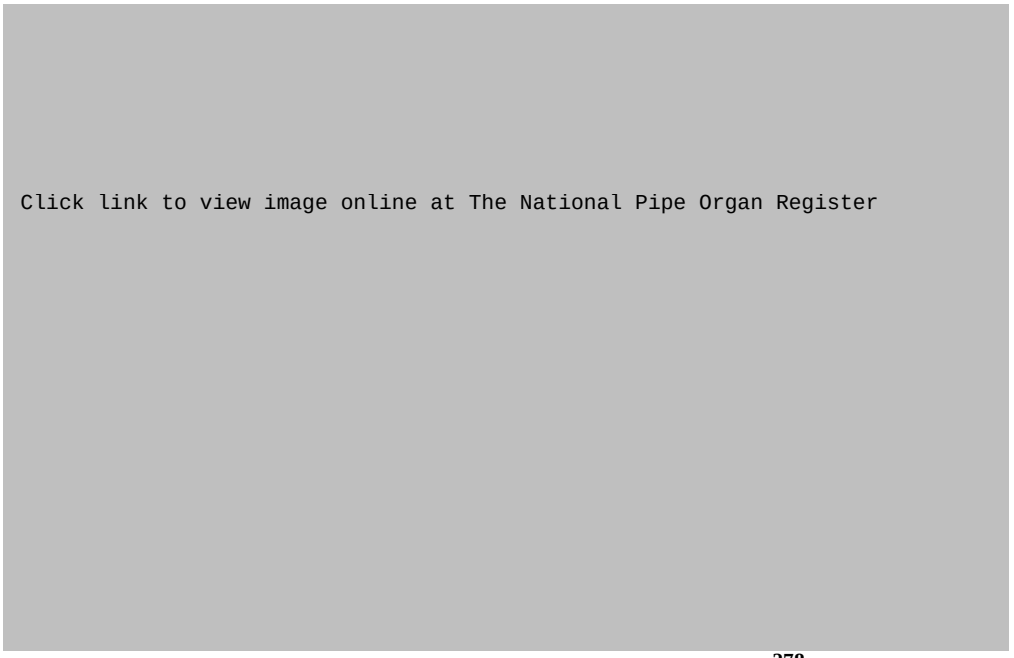

Illustration 3:64 St. Peter, Gloucester[278]

Organ by John Compton c.1937

A larger specification but with the stop tabs still in one line, spread right across the console.

[277] http://www.npor.org.uk/NPORView.html?RI=P00852 accessed 8.9.09
[278] http://www.npor.org.uk/NPORView.html?RI=N07445 accessed 8.9.09

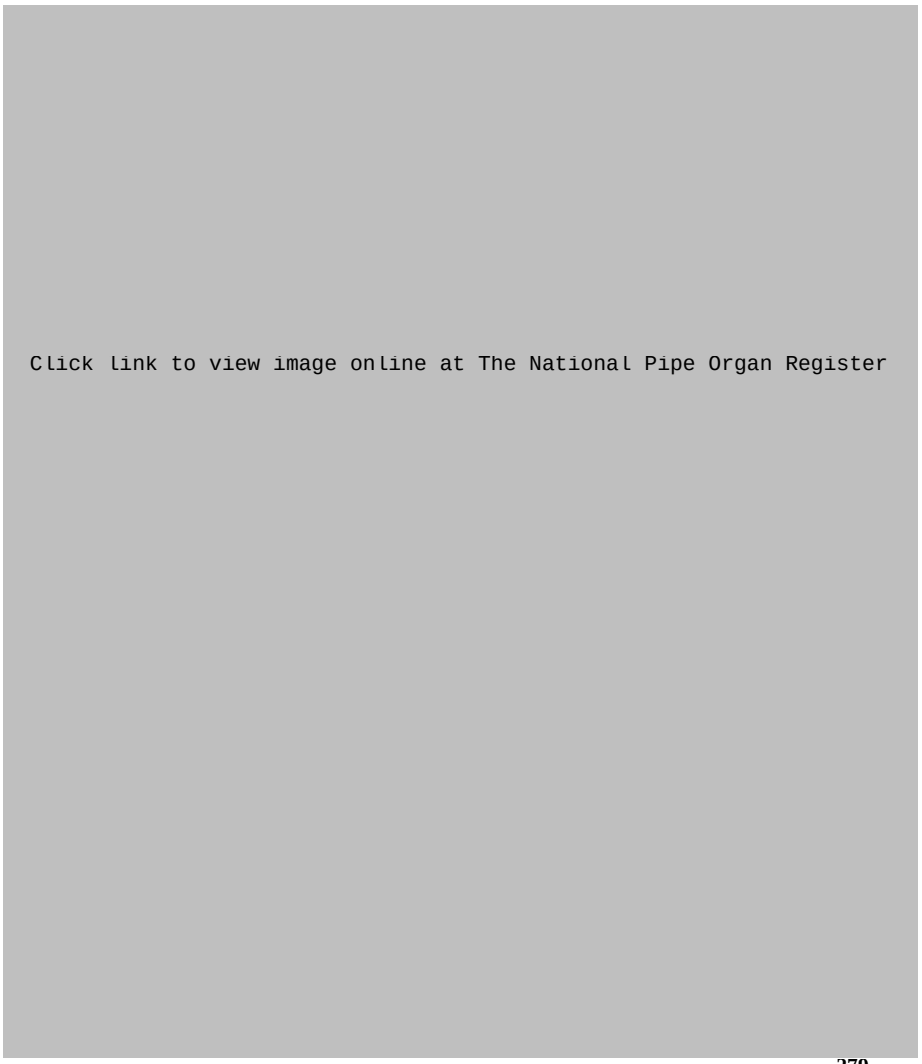

Illustration 3:65 St. Mary the Virgin, Bury, Lancashire[279]

Organ by John Compton 1950

A three-manual instrument, with two lines of stop tabs due to the larger specification. The stops on the upper line are not so easy to read due to the position of the music desk.

[279] http://www.npor.org.uk/NPORView.html?RI=K00077 accessed 8.9.09

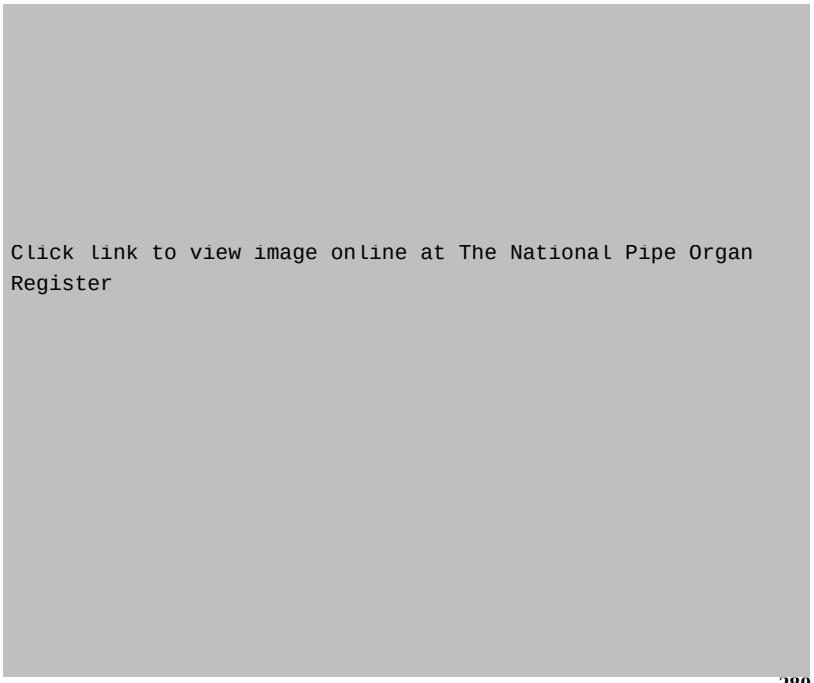

Illustration 3:66 Guildhall School of Music, London[280]

Organ by Grant, Degens & Rippin 1966

The tablets here are of a rocker design, with selectors underneath each one for the single general registration piston.

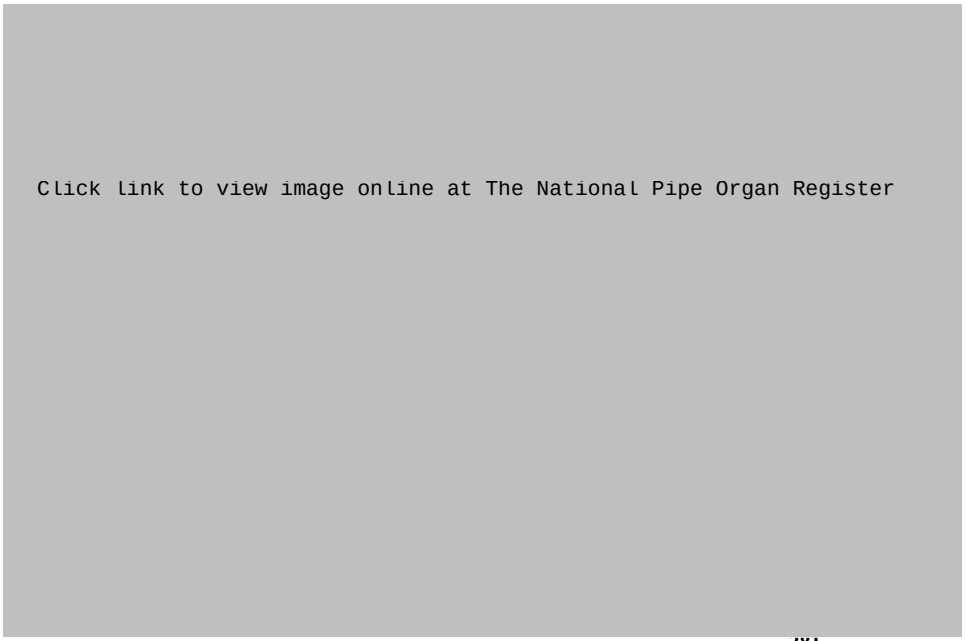

Illustration 3:67 St. Andrew, Biggleswade[281]

Organ by J.W. Walker 1954

One line of stop tabs in a horseshoe design, enabling easier visual contact with the larger number of stops.

[280] http://www.npor.org.uk/NPORView.html?RI=N17747 accessed 7.8.09
[281] http://www.npor.org.uk/NPORView.html?RI=N09369 accessed 5.8.09

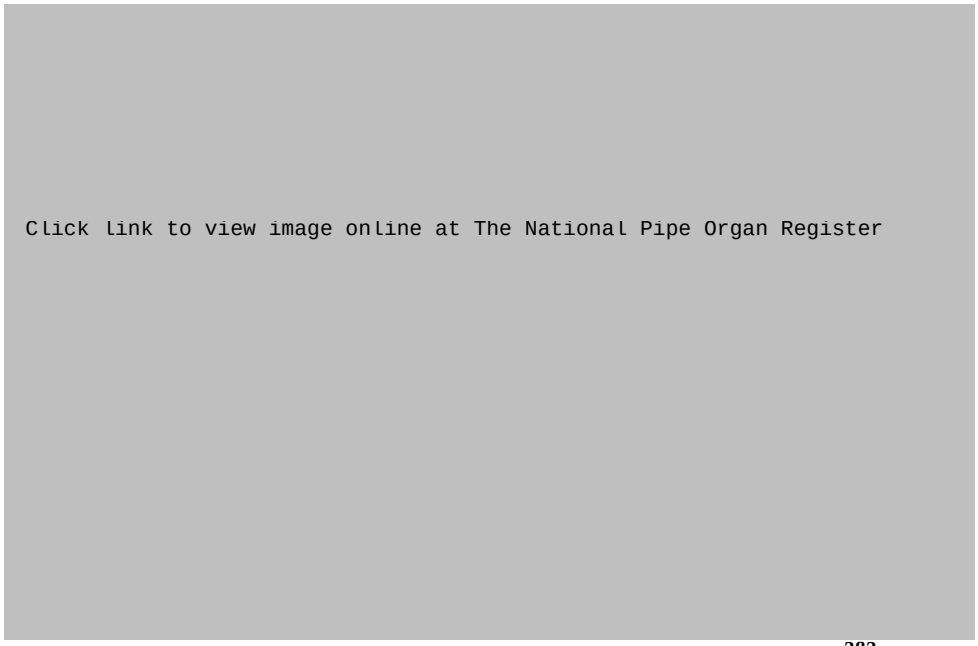

Illustration 3:68 St Stephen the Great, Poole, Dorset[282]

Organ by John Compton 1931

A three-manual instrument, necessitating two lines of stop tabs in a horseshoe design.

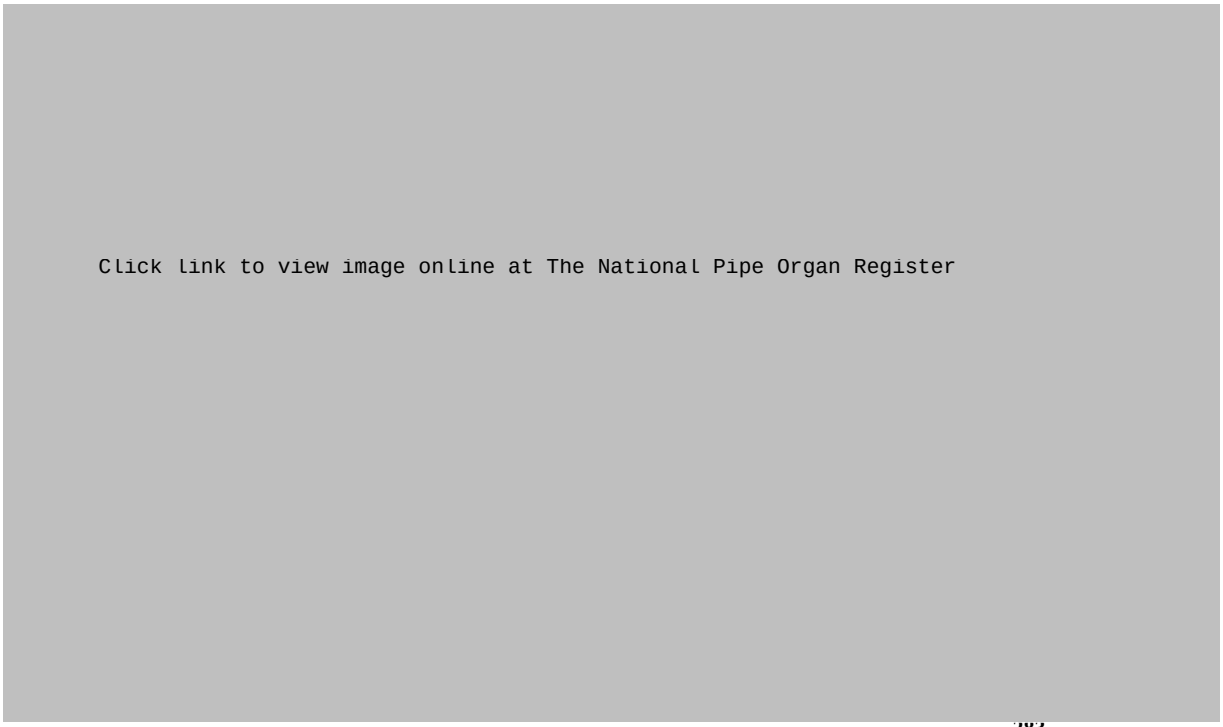

Illustration 3:69 St. Gabriel and St. Michael, Cricklewood[283]

Organ by J.W. Walker 1949

A stop tab console but with the tabs in a similar position to drawstops.

[282] http://www.npor.org.uk/NPORView.html?RI=N07503 accessed 8.9.09
[283] http://www.npor.org.uk/NPORView.html?RI=A01167 accessed 9.9.09

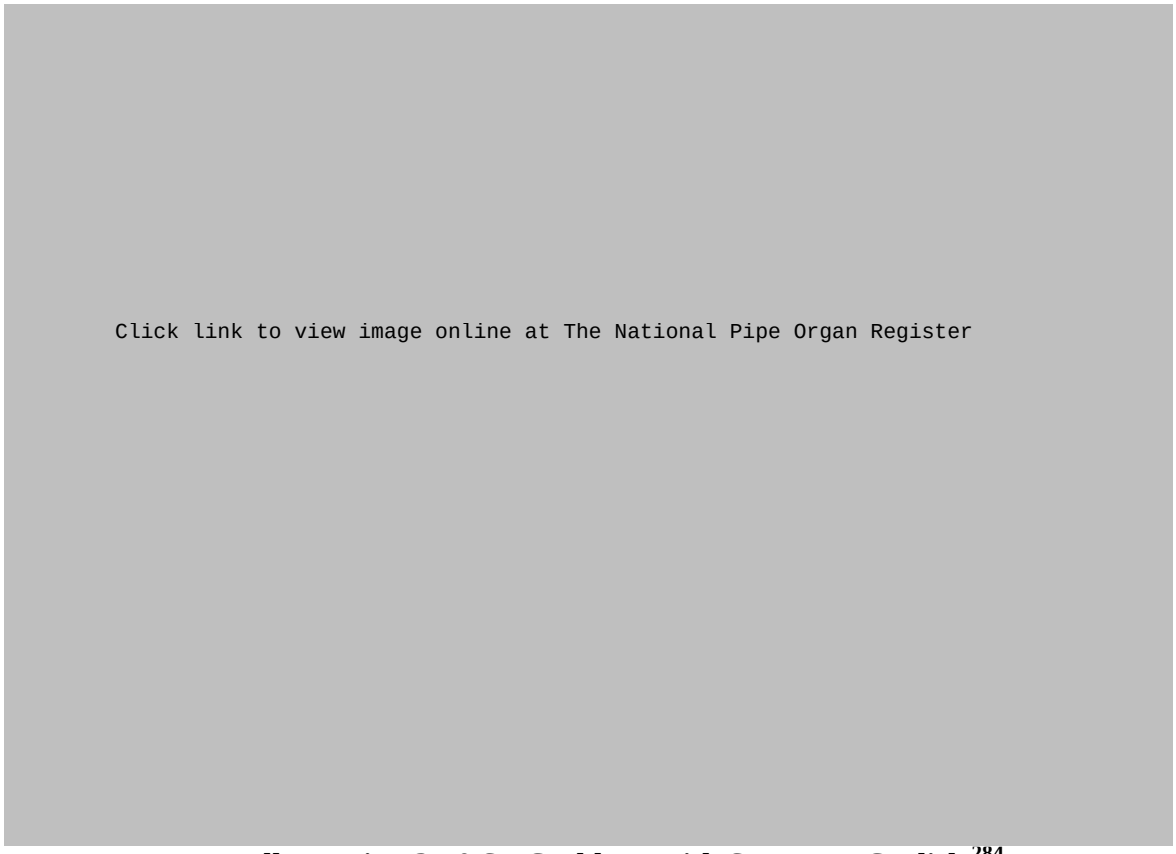

Illustration 3:70 St. Cuthbert with St. Mary, Carlisle[284]
Organ by John Compton 1933
The majority of the stop tabs in the position of drawstops, at 45 degrees to the keyboards, with further stop tabs above the top manual.

3.3.5.3 Stop control - luminous

This form of stop control is particularly associated with the firm of Comptons, with notable instruments built for Downside Abbey, Holy Trinity Hull, the BBC and St Luke's Chelsea. The stops are quick to operate, simply needing a push for either on or off, with a light coming on when the stop is activated , although this is psychologically very different from the traditional way where a push in normally means off. It is easy to manipulate a number of stops quickly; additionally the player can make one stop go on and another go off with just one movement – a quick means of hand registration.

[284] http://www.npor.org.uk/NPORView.html?RI=N03530 accessed 6.8.09

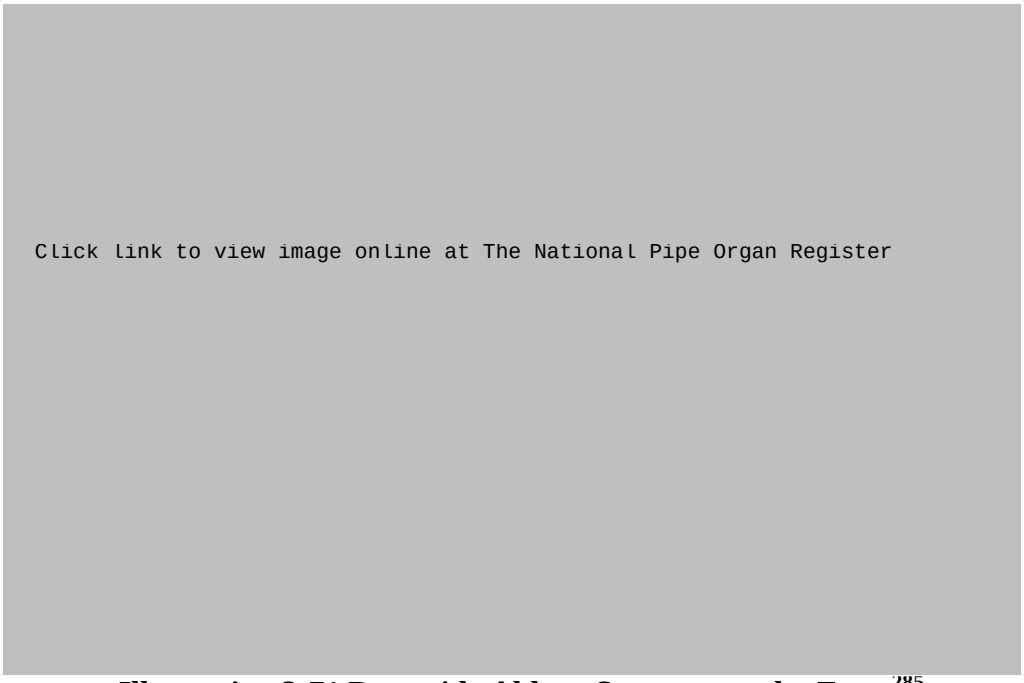

Illustration 3:71 Downside Abbey, Stratton-on-the-Fosse[285]
Organ by John Compton 1931
Note the position of the luminous stops is very similar to that of a traditional drawstop console, but because of the small stop head size a far larger number of stops can be incorporated into the available space.

3.3.5.4 Stop control – other designs

The Rothwell system was virtually unique, with stop tabs placed above each manual. This system was not restricted to small instruments, with even large four-manual organs built with such a design. Certain notable organists in the 1930s were strong advocates for Rothwell's system, praising the fact that it allowed the player to make rapid changes to registration (the designers of St George's Chapel, Windsor Castle were so taken by it that the rebuilt organ incorporated two identical four-manual consoles using the Rothwell tabs) but such instruments were not built in large numbers and few survive intact today.

[285] http://www.npor.org.uk/NPORView.html?RI=N05561 accessed 5.8.09

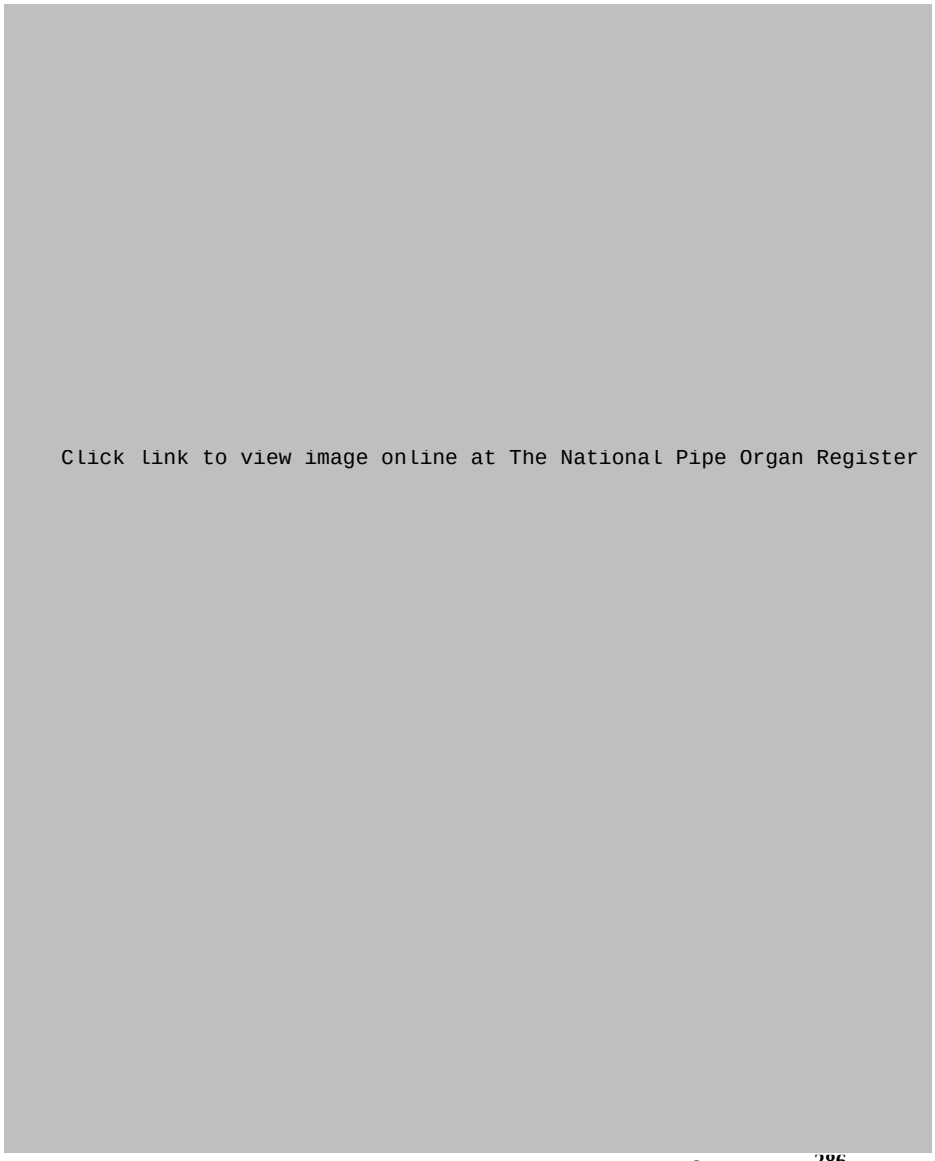

Illustration 3:72 Temple Church, City of London[286]
Organ by Rothwell 1923(destroyed in the Blitz)

[286] http://www.npor.org.uk/NPORView.html?RI=N17809 accessed 8.8.09

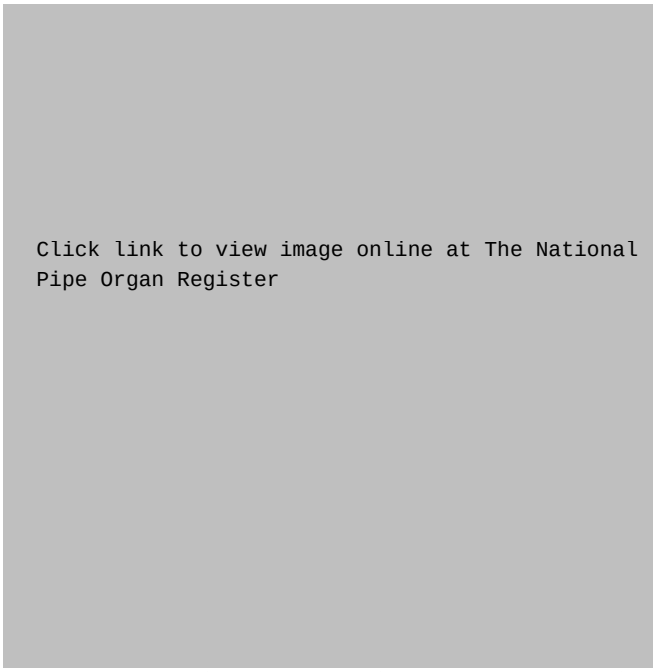

Illustration 3:73 St George's Chapel, Windsor Castle[287]

Organ by Rothwell 1930

One of two identical consoles controlling the organ. Both were destroyed when the organ was rebuilt in 1966.

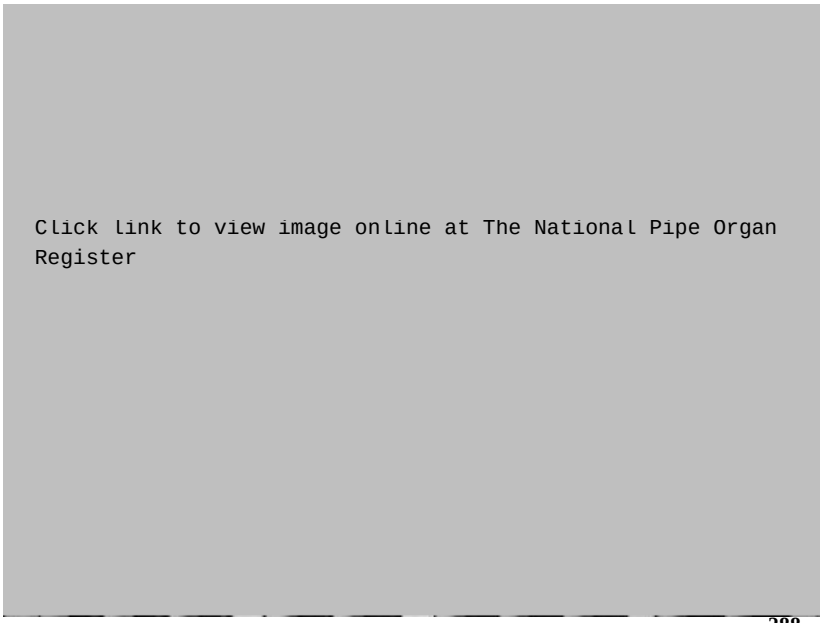

Illustration 3:74 Kensington New Church, Notting Hill[288]

Organ by Rothwell 1928

This shows a typical Rothwell configuration. The Pedal stops are duplicated on both manuals (with a mechanical linkage) and the pistons are stop tabs.

[287] http://www.npor.org.uk accessed 13.7.11

[288] http://www.npor.org.uk/NPORView.html?RI=T01008 accessed 7.8.09

The Leicestershire firm of Taylors had a unique design, with miniature drawstops placed in the positions where normally stop tabs would be found. This enabled a large number of stops to be incorporated but the size of the stop heads could prove to be awkward to identify and operate.

Click link to view image online at The National Pipe Organ Register

Illustration 3:75 Leicester Concert Hall[289]
Organ by Taylor 1913

Illustration 3:76 St. Peter, Leicester[290]
Organ by Taylor 1910

[289] http://www.npor.org.uk/NPORView.html?RI=N04498 accessed 8.9.09
[290] Edmonds, B.B. (1994) Stephen Taylor & Sons Organ-builders of Leicester *BIOS Journal 18* p18

Occasionally there are unusual hybrid designs, sometimes the result of an ambitious rebuild when the builder had run out of space for additional stops. One example was the rebuilt organ for St Andrew's Church, Plymouth, with the stops for the Solo placed above the top keyboard whilst all of the other stops were traditional drawstops. Sadly the instrument was destroyed in the Blitz in 1941, a mere four days after being completed:

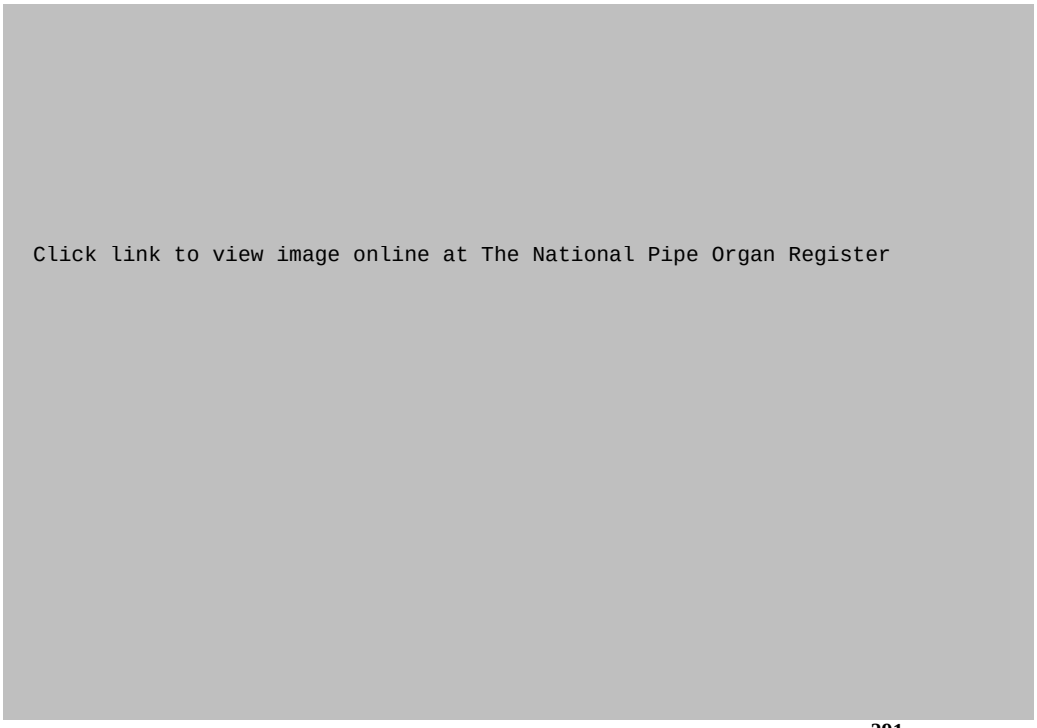

Illustration 3:77 St Andrew's Church, Plymouth[291]
Organ by Hele 1941- overview of console

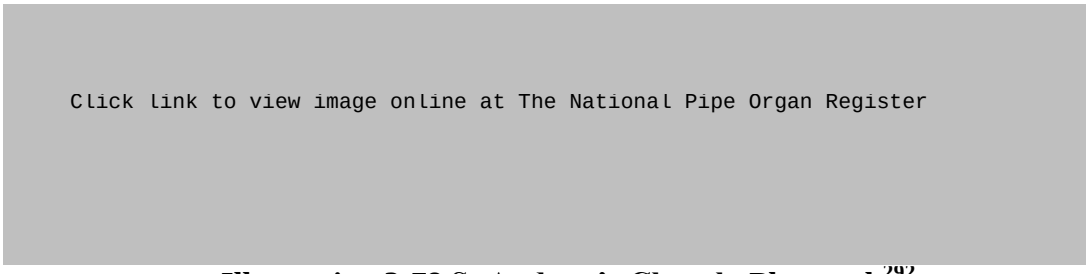

Illustration 3:78 St Andrew's Church, Plymouth[292]
Organ by Hele 1941- Solo stops above top keyboard.

[291] http://www.npor.org.uk/NPORView.html?RI=N18306 accessed 2.6.11
[292] Ibid.

3.3.6 Placing of couplers

The positioning of couplers is not standardised and even established major builders are not always consistent in their approach, although there are situations in which unusual configurations might be due to pressure put on the builder by the organist and/or consultant. Possible positions include:

- Drawstop consoles – all of the couplers placed together on one jamb
- Drawstop consoles – each division has its couplers placed on the same jamb as the speaking stops
- Drawstop consoles – all of the couplers are arranged above the top keyboard, using the same type of drawstop as for the speaking stops
- Drawstop consoles – all of the couplers are arranged above the top keyboard, using stop keys (this system was popular with the firm of Willis).
- Drawstop consoles – fully mechanical action instruments (particularly of the neo-classic design) with no drawstops for the couplers but instead having the couplers operated by hitch down foot pedals.
- Stop key consoles – all of the couplers grouped together
- Stop key consoles – each division has the couplers placed with the speaking stops

3.4 Summary

This chapter firstly focused on the different types of swell pedals to be found in the period 1945-1970 and secondly considered the various approaches to console design. There was musical consideration of controlling both the trigger swell lever and the balanced swell pedal, and examples were given in regard to interpreting the expressive features to be found in organ compositions.

Consoles in the period 1945-1970 varied considerably and the examples in this chapter highlight the need for players to be versatile in order to overcome the many challenges that could be encountered. The placement of thumb pistons was not standardised and it was shown that some builders appeared to have little regard for players' needs; similarly, stop controls varied significantly in this period, with the traditional drawstop being replaced at times by stop tabs and rocker tabs. This alternative type of stop control affected performance, with stop tabs permitting rapid changes of hand registration which were not always feasible with the more traditional drawstop models.

4 Organs in Britain 1945-1970

4.1 Introduction

Chapters 2 and 3 focused on the mechanical aspects of the organs in the period 1945-1970. This chapter considers the types of organs to be found in this period, firstly focusing on aspects of tone colours, moving then to an overview of the range of instruments available to players, considering both their strengths and limitations.[293] Reference will be made to instruments that are presently extant, though, with the organ being the most mechanically complex of all instruments, it is inevitable that in order to ensure organs from the past continue to operate efficiently remedial and/or restoration work is needed, with such work often affecting the original characteristics of the instruments. As far as possible the instruments chosen for consideration in this chapter are ones that have not been altered significantly since 1970. A point to be noted is that, whilst this chapter focuses on organs that were extant in the period 1945-1970, a number of these organs were in fact built prior to 1945, reflecting the range of instruments organists would have encountered in the period.

4.2 Tone colours

From the viewpoint of the early twenty-first century it is possible to dismiss the specifications of many British instruments from the middle of the twentieth century as being dull and of limited musical worth. However, musicians such as Dr William Lloyd

[293] For detailed views on organs influenced by the ORM see, for example: Rowntree, John P. and Brennan, John F. (1987) *The Classical Organ in Britain Volume 1 1955-1974* Oxford: Positif Press; Rowntree, J. P. (1984) *The development of 'classical' principles in organ building in Britain in the twentieth century.* University of Southampton: unpublished PhD thesis. Prozzillo, N.S. (2011) *Organ reform in England: aesthetics and polemics, 1901-1965.* University of Oxford: unpublished DPhil thesis; articles in The Organ, BIOS Journal, Organists' Review.

Webber,[294] a man of considerable authority and experience, found positive qualities in such organs, appreciating individual tone colours and the creative use of what appears to be limited tonal palettes. In 1950 Lloyd Webber[295] wrote about a number of instruments that appear to be very restricted on paper, such as St Elisabeth's Becontree[296]. He enthused about aspects of this organ, such as the Full Swell effect (using the sub and super octave couplers) and talked about the virility and drive of the Great Open Diapason and Principal, and the delightful contrasts of the Clarabella and Lieblich Gedact. With the organ of Emmanuel Church, Leyton, he talked about the 'clean-cut Contra Viola and the orchestral timbre of the Harmonic Flute in its lower register.'[297]

A writer from a later generation, Relf Clark, writing in 1994, saw the merits of the lowly Dulciana (lowly at least in some organists' eyes), explaining that is a very important stop of this period for accompanying soft imitative reeds on the Swell or Solo.[298] Forty years earlier, George Dixon, had an opposite view to this. In his book on registration he said the conventional Dulciana was too indistinct for accompanying the Oboe, sitting too close in tone to it.[299]

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[294] William Southcombe Lloyd Webber. (1914-1982) Studied RCM. (DMus, FRCO) Organist of Central Hall, Westminster; Director LCM; Professor RCM. Prolific composer (including organ works) though his style was out of vogue for many years. Father of two famous musicians: Andrew (composer) and Julian (cellist).

[295] Lloyd Webber, W.S. (1950) Some organs in East London and on the borders of Essex. *The Organ* Vol. XXX July no.117 pp22-31

[296] St Elisabeth's Becontree Spurden Rutt 1949
Gt: 8 8 8 4; Sw: 8 8 8 4 8; Pedal: 16 8

[297] Emmanuel Church. Leyton Spurden Rutt 1934
Gt: 16 8 8 4 4 2⅔ 2; Sw: 8 8 8 4 8; Pedal: 16 16 8 8

[298] Clark**,** R. (1994) Transcriptions *BIOS Journal 18* p135

[299] Clutton and Dixon (1950) op.cit.p153

Reed stops went through a change in this period, not only in the way that they were voiced but also in the prominence given to them. An article by Downes on the new Royal Festival Hall organ explained that

> ...the total power of the reed stops is about 1/3rd of that of the full organ. The reeds are in most cases intended to be used with at least one flue stop, though not necessarily of equal pitch. There are no 'loud reeds', in the modern sense.[300]

David T. Williams noted this supposed omission of a loud reed stop, feeling that '…it is still quite impossible to do justice to all schools of organ music, if only because of the missing Tuba.'[301] Peter Hardwick feels the Tuba stop has a 'significant role in numerous works in this genre',[302] but there is a difference between what is desirable and what is genuinely indispensable. A composition such as Norman Cocker's *Tuba Tune* makes great play on the contrasts between a very prominent and dominating solo reed, the Tuba, and supporting choruses on the Great and Swell.[303] A performance is not going to be fully effective when played without such a loud high-pressure solo reed but nevertheless a performance can always be achieved, as will be shown later in this chapter when considering compositions by Percy Whitlock. British organists can appear to be obsessed with a powerful high-pressure reed but it might be the case that this comes from amateur players hankering after the thrill and splendour of the cathedral organ.

The need for clarity in registration is emphasised throughout Chapter IV of Clutton and Dixon's book and there are many registration suggestions of an eminently practical

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[300] Downes, R. (1954) The organ for the Royal Festival Hall, London. *The Organ* April Vol. XXXIII no.132 p160
[301] Williams, D.T. (1958) Letters to the editor. *The Organ* October Vol. XXXVIII no.150 p104
[302] Hardwick, Peter (2003) *British Organ Music of the Twentieth Century* Maryland, USA: Scarecrow Press Chapter 13
[303] Cocker, N. (1922) *Tuba Tune* London: Stainer & Bell

nature.[304] (see Appendix 1 for detailed registrations of a three-manual organ) Dixon had a particularly dislike of hushed thick textures, citing a piston setting on the Swell division, common on many organs, whereby four 8ft. stops, including an Oboe, are drawn; his remark is vividly damning, observing that 'the various stops effectively kill each other and simply serve to produce a 'mash' of tone.'[305] The popularity of such combinations implies that many organists and composers evidently liked such effects, such textures possibly implying for them a reverential state. This 'mashed tone' piston setting was, in fact, a fixed setting to be found on the organ of the Royal College of Organists right up to 1967, prior to the instrument's major rebuild in 1967,[306] with this instrument exercising considerable influence over generations of amateur and professional organists who sat their ARCO and FRCO[307] examinations on it.

4.3 The categories

For the purposes of this chapter it is proposed to consider British organs of this period in three broad groups, based on size:

(a) Small-scale instruments (typically found in small churches, along with some house organs)

(b) Medium-scale instruments (typically found in average parish churches)

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[304]Though nominally a collaboration the preface of this book makes clear that the chapters on Tonal Structure and Registration were primarily authored by Dixon, based on articles he had previously written for *The Organ* magazine.

[305] Clutton and Dixon (1950) op.cit.pp141-167

[306] Webb, S.J. (1967) The new organ in Royal College of Organists. *The Organ*. October Vol. XLVII no.186 pp54-58.

[307] The ARCO and FRCO examinations are considered to be gold standards within the organ world. Candidates are examined not only on their practical skills (set pieces and keyboard harmony tests) but also on their command of harmony and counterpoint.

(c) Large-scale instruments (typically found in concert halls, cathedrals, large parish churches, universities and chapels of major schools)

In order to place the instruments identified in this chapter into one of these three categories the following factors have been considered:

- The number of manuals
- The number of stops
- The size of the pedal division
- The range of couplers
- The Swell box
- The types of registration aids

Within each category of size many types of tonal design can be encountered. Already by 1951 the noted commentator Bonavia-Hunt showed awareness of the changes occurring in the world of British organ design, suggesting there were six different organ schemes or types of organ:[308]

- Classic (*sometimes referred to as 'neo-classical' and in this context possibly meaning organs influenced by the eighteenth century*)
- Baroque (*by this Bonavia-Hunt possibly meant actual extant historical organs*)
- Unit (*using the extension system*)
- Ultra-foundational (*instruments influenced by Hope-Jones*)
- Romantic (*instruments from the nineteenth century and early twentieth century*)

[308] Bonavia-Hunt, N.A (1951) Classic and otherwise *The Organ* Vol. XXX April no.120. pp193-197

- Polythematic (*Bonavia-Hunt uses this term for such instruments that manage to combine some, if not all of the above characteristics*).

There is some overlap in these six types and therefore Bonavia Hunt's suggestions can be further refined into three broad areas of tonal design:

a) Traditional organs

b) Transitional organs

c) Classical organs

In addition to these three designs there is one further type of design to be found in this period which does not fit neatly into any one of the above categories, but rather straddles all of them, and this is the Extension system.

4.3.1 Traditional organs

The term 'traditional' is used in a general way, referring to those instruments that make up the majority of organs that were to be found in Britain in the period 1945-1970, with such instruments still to be found in many buildings today. These instruments often show little or no evidence of understanding or knowledge of the principles of the classical organ; voicing is predominately in the early twentieth-century romantic tradition, with considerable emphasis on 8ft. ranks, along with quite heavy wind pressures; the need for chorus work is not seen as of primary importance and consequently upperwork can be quite restricted; key actions might be mechanical, especially in smaller instruments or in cases where financial restraints prevented rebuilding, but many will have pneumatic or electric actions. Major builders of the period inevitably tend to dominate (e.g. Binns, Compton, Harrisons, Hill, Norman &

Beard, Rothwells, Rushworths, Walkers, Willis) although many smaller firms were also active.

4.3.2 Transitional organs

These types of organs were more prevalent from the late 1950s/early 1960s onwards, as the influence of Organ Reform Movement gradually affected the views of builders, consultants and players. This was particularly so after the high profile opening of the Royal Festival Hall organ in 1954. Such transitional organs were commonly rebuilt and/or enhanced with what were considered to be 'Baroque' characteristics, resulting often in hybrid instruments that were tonally uneven. A typical rebuild would see an existing Victorian or early twentieth-century organ having an unsuitable division added e.g. a Positive division, in which the low wind pressures and many high pitched ranks did not sit easily with the rest of the organ.[309] Builders who are particularly associated with this type of work include Compton, Harrisons, Hill, Norman & Beard, Walkers and Willis.

There is a trend nowadays for such instruments to be condemned, but they need to be accepted as they stand, including any perceived imperfections, since many of those concerned with organ building and design at this period in history were experimenting with clearly good intentions. There are many organs that remain in this transitional state though in more recent times some of these instruments have undergone corrective

309 See for example Huddersfield Town Hall:

Huddersfield Town Hall. Organ by Conacher 1948	Huddersfield Town Hall. Organ rebuilt by Willis 1956
Choir: 8 8 8 8 4 2 8	Positive (formerly Choir): 8 4 2⅔ 2 1⅗ III 16

'surgery', with rebuilds endeavouring to return them to their original concept (see the example discussed in chapter 1, St Helen's Abingdon).[310]

4.3.3 Classical organs

These instruments, conceived on and built to strict classical principles,[311] were built by those fully converted to the concept of neo-classicism, constructed with little or no compromise to prevailing tastes and inevitably alienated many people. Some organs were imported from countries such as Denmark (e.g. Frobenius in The Queen's College, Oxford from 1965) and Holland (e.g. Flentrop at the Queen Elizabeth Hall in 1967) whilst others were home-grown, with younger firms such as Grant, Degens and Bradbeer, Collins and Manders leading what some saw as a revolution in the organ world. The main characteristics of pure mechanical action (for manuals and pedal), low wind pressures, fully developed chorus work, a substantial amount of upperwork and fully independent divisions, including the Pedal, encouraged the return to clean contrapuntal lines in both playing and composing, reflected in works by composers such as Mathias, Leighton and Jackson.

4.3.4 Extension organs

The principle of the extension system is to obtain two or more stops from a single rank of pipes e.g. a stopped diapason 8ft. could be provided with an extra twelve pipes at the top end of its range and, with the appropriate mechanism, a 4ft. stopped flute

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[310] Wickens, D. (1999) op.cit.

[311] Rowntree J.P and Brennan J.F. (1987) *The Classical Organ in Britain Volume 1 1955-1970* Positif Press Oxford. p9. In their introduction the authors quote from the Concise Oxford Dictionary*: "classical – first class, standard and restrained".*

could be derived from the same rank. The concept of extension has its origins in the nineteenth century, primarily to reduce costs and space (more often the former reason) and by 1945 the use of extension systems had become very well established. The firm of John Compton was most commonly associated with the extension system, though many other builders, both large and small, used it to varying degrees (Willis was a notable exception, who made a particular point of never using extension with manual divisions, although this policy was not applied to pedal divisions). However, there are three particular musical problems that arise from the employment of the extension system in organs:

a) A compromise with voicing is necessary to ensure the extended rank balances throughout all of the pitches utilised – inevitably a certain blandness and lack of character ensues in order that the top end of, say, an 8ft. stop does not overwhelm when it becomes the lowest end of a 2ft. stop.

b) The tuning of mutation stops (e.g. twelfths, tierces) differ from that of unison stops on organs tuned to equal temperament, and when the pipes for mutation stops are extended from unison ranks then the resultant sound can often be rough and aurally very unpleasant. This is particularly apparent if using such stops in contrapuntal writing.

c) There is also the problem of missing notes which can be noticeable when performing contrapuntal music. Playing upon a registration chosen from, for example, an 8ft. stop and a 4ft. stop, both of which are derived from one rank of pipes, will result in a loss of clarity, with notes omitted from the texture.

The next section now looks at six organs from each of the three categories of size.

4.4 Small-scale instruments

Organs of a small scale might not seem at first glance to be of any great musical significance or value but a large core of the repertoire was conceived for them and for many players these are the instruments that are used on a weekly basis.[312] Few of them have been rebuilt and 'improved' in recent times, with many of these instruments in their original condition, often due to a lack of finance and also due to a lack of interest or understanding from the relevant authorities.

From the viewpoint of today some of these instruments were built with unusual tonal designs and mechanisms. For example, the organ in the chapel of Lincoln College Oxford,[313] with a mere six stops over two manuals, was supplied with pneumatic action, whilst the eight-stop instrument in Stratton Parish Church[314] was built new in 1952 by Harrisons and yet had electro-pneumatic action.[315] Harrisons were not just builders of large-scale cathedral and concert hall organs and the specifications of instruments built in the decade before the organ for the Royal Festival Hall give much food for

[312] Numerous pieces in a conservative idiom, clearly designed for amateur players with a modest technique and access to a small instrument, were written by composers such as Henry Coleman, William Harris, C.S. Lang, William Lloyd Webber, Desmond Ratcliffe, Arthur Milner, Alec Rowley and Eric Thiman. See Appendix 17

[313] Lincoln College, Oxford. Organ by Harrisons 1935
Gt: 8 8 4; Sw: 8 8 octave coupler; Ped: 16

[314]Stratton Parish Church. Organ by Harrisons 1952
Gt: 8 8 4; Sw: 8 8 4; Pedal: 16 8

[315] Miller, A. G. (1958) Village Church organ design. *The Organ* January Vol. XXXVII no.147 p105

thought,[316] with examples commonly found of small parish church organs[317] being built with 12-15 stops and yet including nothing above 4ft. pitch, with the majority of stops being just at 8ft. pitch. Others writers in the 1960s were more enlightened, such as Sumner[318], whose suggestion of an economical and versatile design for an 18/19 stop instrument revealed considerable knowledge of musical needs.[319]

Certain builders of small organs did begin to break away from traditional organ design, some in a more conservative manner, such as Hill, Norman and Beard[320] at St George's Church, Dunster[321], others in a radical and often controversial way, such as the Martenssons[322] organ installed in 1953 in the Swedish Seamen's Church, Rotherhithe[323], and the Grant, Degens and Rippin (GDR) at St John's Church,

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[316] St Alban's Church, Stroud. Organ by Harrisons 1948	Martin's Memorial Church, Stornoway. Organ by Harrisons 1949
Manual: 8 8 8 8 8 4 2⅔ Sub-octave coupler Pedal: 16 Electric action	Great: 16 8 8 4 Swell: 8 8 4 III (12,15,17) Pedal: 16 8 Mechanical action throughout

[317] Adcock, E.A. (1945) 2 Suffolk Organs. *The Organ* October Vol. XXV no.98 p66
[318] Sumner, W.L. (1961) *The Parish Church Organ (Study Notes No.7)* Croydon: RSCM p14

[319] From Sumner (1961b). Suggestion for a church organ
Gt: 8 8 8 4 2⅔ 2; Sw: 8 8 4 2⅔ 2 III 16 8; Pedal: 16 16 8 4 16 (from Swell)

[320] Oliver, D.J.(1963) The organ of St George's Church, Dunster. *The Organ* April Vol. XLII no.168 pp167-175. Due to financial restraints much of the old organ was re-used and some extension work was introduced – despite this, the specification does show an attempt at chorus work, although the Great has no Mixture and has an en-chamade reed, designed to project the tone into a building which has an appalling acoustic.

[321] St George's Church, Dunster. Organ by HNB 1959
Gt: 16 8 8 8 4 4 4 2⅔ 2 2 8 4; Sw: 8 8 8 8 4 4 2⅔ 2 1⅗ 1⅓ III (22,26,29) 16 8 8 Pedal: 16 16 16 8 8 4 2 16 16

[322] Whitehall, T.M.N. (1964) The organ in the Swedish Seamen's Church, Rotherhithe. *The Organ* October Vol. XLIV no.174 pp90-93.This was a strictly Classical instrument, pure tracker with no frills though it did have a swell box. Nowhere in the article is there a clue as to why this organ was chosen and whether or not the consultant was British.

[323] Swedish Seamen's Church, Rotherhithe. Organ by Martenssons 1953
Gt: 8 4 4 2 III; Sw: 8 4 2 1⅓ & 1; Pedal: 16 4

Fareham.[324] This latter firm firmly nailed their neo-Baroque colours to the mast from the outset, even when building small organs, with examples including St Martin's Church, Hull[325] and the Methodist Church, Tooting[326]; the latter instrument was designed by Cecil Clutton.[327] His view on organ design was sometimes rather contradictory; for example, when he looked at three new Classical British organs[328] (Leeds[329], London[330] and Little Walsingham[331]) he referred to the convincing full Swell effect that was possible on the organ in Little Walsingham but this specific romantic effect was not in line with his views on the Classical organ.

Small-size instruments would typically be found in small churches and occasionally in private houses. Continuo-type instruments are not included in this overview, not only due to the limitations of such organs (one manual, no pedals and normally a maximum

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[324] St John's Fareham, Hampshire. Organ by GDR 1964. Electro-pneumatic action
Gt: 8 4 2 IV; Pos: 8 4 2 II (12,17); Pedal: 16 8 8 4

[325] Hunter, F.G. (1967) A new small organ in Hull. *The Organ* October Vol XLVII no.186 pp59-62. Hunter gives a reasoned account of why certain stops in this 14 stop organ were included and others were excluded, and most interestingly why there was no swell box – in a liturgical instrument this last omission does seem surprising, but Hunter argues convincingly that the money saved was better spent on another two stops.

[326] Methodist Church, Tooting. Organ by GDB 1967
Gt: 8 4 2⅔ 2 1⅗ IV; Sw: 8 4 2 1⅓ 8; Pedal: 16 8 4 II 16

[327] Clutton, C. (1968) Two small new organs. *The Organ* January Vol. XLVII no.187 pp131-134. This organ had 16 stops which Clutton regarded as the smallest number needed to avoid serious problems of compromise.

[328] Clutton, C. (1965) Three new Classical British organs with tracker action. *The Organ* January Vol. XLIVno.175 pp105-114

[329] Holy Trinity Cookridge, Leeds. Organ by HNB 1963
Gt: 8 4 2⅔ 2 ; Sw: 8 8 4 2 1⅓ 8; Pedal: 16 8 4

[330] Our Lady and St Joseph, Kingsland London N1. Organ by Walkers 1963
Gt: 8 4 4 2⅔&2 1⅓; Pos: 8 8 4 2 II 8; Pedal: 16 8 4 2 4

[331] St Mary, Little Walsingham. Organ by Arnold, Williamson and Hyatt 1963
Gt: 8 8 4 4 2⅔ 2 1⅗ IV; Sw: 8 8 4 2 1⅓ 1 16 8; Pedal: 16 8 4 II 16 8 2 16 8 4 (extension in most ranks)

of three stops, with the majority having just one stop), but also to the fact that they are designed for a different role to that of the church and/or concert hall organ.

4.4.1 Number of manuals

Examples of one-manual instruments are considered, along with those with two manuals.

4.4.2 Number of stops

With each manual division the number of stops can range from one to about six (but this upper figure is flexible).

4.4.3 Size of pedal division

It is very unlikely that any sense of pedal chorus will be found, with in many cases only one or two stops provided: a 16ft. Bourdon (or Sub Bass) is the most likely stop, with possibly an 8ft. Flute, which will commonly be simply extended from the 16ft. rank.

4.4.4 Couplers

Standard couplers for inter-manual and manual to pedal would normally be available, though sometimes on a two-manual organ only one manual to pedal coupler (e.g. Great to Pedal) might be found; small extension organs (of two or three ranks) will probably have no inter-manual couplers. Additionally, octave and sub-octave couplers might be included, both in an attempt to make the instrument sound louder and to give some extra tonal flexibility.

4.4.5 Swell box

It is very likely that at least one manual will be under expression (extension organs might well have all the ranks enclosed in one box - see for example a typical Compton three-rank instrument in Battle Abbey School[332]). Depending on the age of the organ, and also if any rebuilding work has occurred, the swell box might be controlled either by a trigger lever or a balanced swell pedal.

4.4.6 Registration aids

These are likely either to be restricted in number or none will be available. The ubiquitous fixed combination pedals (invariably mechanical) might number two or three each for the Great and Swell divisions, giving a range of dynamics from *p* to *f*. The *p* combination pedal for the Great is most likely to be a solitary 8ft. (probably a flute stop) whilst the *f* combination pedal is likely to bring out all of the stops, irrespective both of the unsuitable mix of sonorities and the demands on the department's wind resources. The Swell's *p* combination pedal might be one or two 8ft. flues (a mix of flute and string tone if available) with the *f* combination pedal often bringing out all of the stops – the so-called 'mash of sound' as criticised by commentators such as George Dixon.[333] What can be surprising is the fact that some very small organs have such aids which have very limited musical application and can appear to be a waste of resources.[334]

[332] http://www.npor.org.uk/NPORView.html?RI=N15333 accessed 4.6.10
[333] Clutton and Dixon (1950) op.cit.pp141-167
[334] See for example Rugby School's Memorial Chapel: The six-stop organ by Harrisons (1923) has only three stops on the Great and yet this division has two combination pedals.

4.4.7 Examples of small-scale organs

1. One manual, 3 stops, built c.1860 (traditional) - All Saints**,** Old Burghclere
2. One manual, 12 stops, built 1962 (extension) - St. Mary the Virgin, Orton Waterville
3. Two manuals, 10 stops, undated c. 1890 (traditional) - All Saints, Winchester
4. Two manuals, 8 stops, built 1951 (traditional) - St. Peter, Stratton
5. Two manuals, 11 stops, built 1953 (Classical) - Swedish Seamen's Mission
6. Two manuals, 12 stops, built 1969 (transition) - St. Helen, Wheathampstead

1. All Saints, **Old Burghclere, Hampshire**[335]

Date/Builder: c.1860 Father Willis

Variation of a Scudamore-type organ[336]

	Pedal	
	No stops (coupled to manual)	
	Manual	
1	Open Diapason	8
2	Dulciana	8
3	Principal	4

Console: Stop type **drawstops** Pedalboard **flat and straight. 2 octave range**

[335] http://www.npor.org.uk/NPORView.html?RI=D05792 accessed 4.7.10
[336] Baron, John (1858) *Scudamore Organs, Or, Practical Hints Respecting Organs for Village Churches and Small Chancels* London: Bell and Daldy

Illustration 4:1 All Saints, Old Burghclere – console

Illustration 4:2 All Saints, Old Burghclere – case

Comment

Designed for a small building where the limited musical requirements preclude anything elaborate. Note the smaller than usual pedalboard range and the absence of pedal stops. Despite only three stops the instrument is capable of being used for much simple repertoire of the period 1945-1970, including a substantial number of works by composers such as Rowley, Thiman and Milner.

2. St. Mary the Virgin, Orton Waterville, Huntingdonshire[337]

Date/Builder: 1962 J.W. Walker & Sons Ltd

	Pedal	
1	Bourdon	16
2	Bass Flute	8
3	Octave Flute	4
	Manual	
4	Bourdon Bass	16
5	Open Diapason	8
6	Open Diapason Treble	8
7	Gedeckt	8
8	Principal	4
9	Gedeckt Flute	4
10	Nazard	2⅔
11	Fifteenth	2
12	Flautino	2

Console: Stop type **stop keys** Pedalboard **concave radiating**

[337] http://www.npor.org.uk/NPORView.html?RI=D06469 accessed 5.7.10

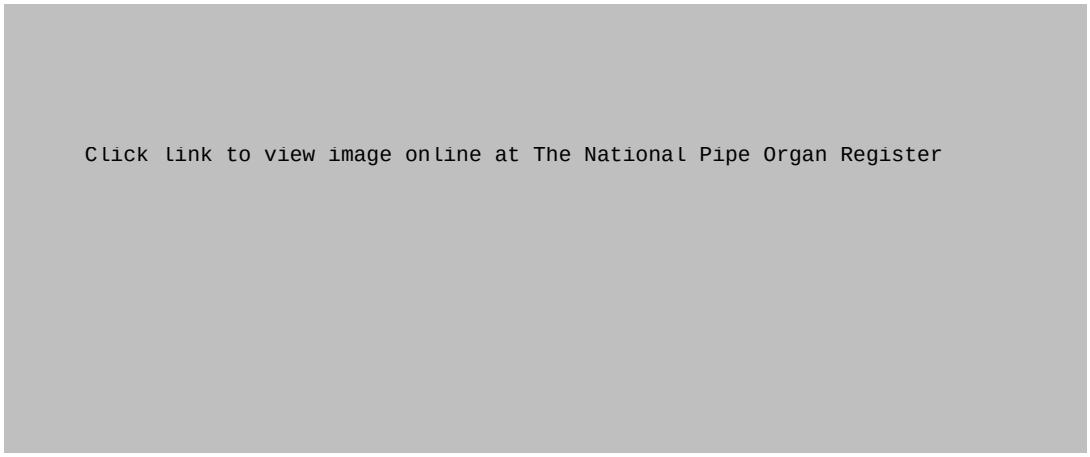

Illustration 4:3 St. Mary the Virgin, Orton Waterville – console

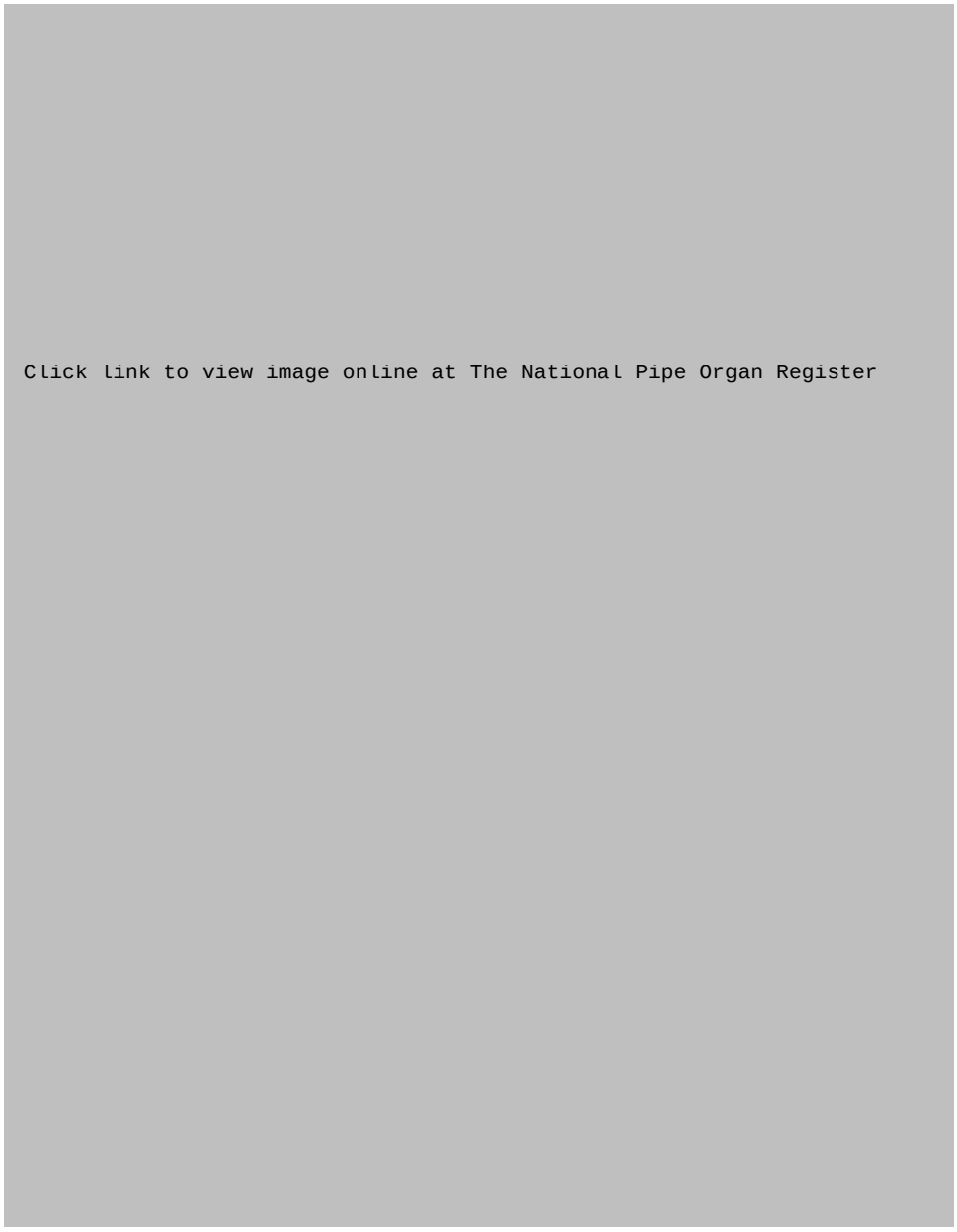

Illustration 4:4 St. Mary the Virgin, Orton Waterville - case

Comment

A more ambitious scheme on paper, although, in fact, simply an extension organ with its twelve stops derived from just two ranks – despite this, the range of pitches does allow for considerable variety in registration.

3. All Saints, Winchester, Hampshire[338]

Date/Builder: c. 1890 (undated) Bishop & Son, London & Ipswich

	Pedal	
1	Bourdon	16

	Great			**Swell**	
2	Open Diapason	8	6	Double Diapason	16
3	Clarabella	8	7	Open Diapason	8
4	Dulciana	8	8	Stopped Diapason	8
5	Principal	4	9	Principal	4
			10	Cornopean	8

Console Stop type **Drawstops**
Pedalboard **straight concave**

Accessories
Balanced Swell pedal
2 composition pedals to Great: Clarabella + Principal / OD + Principal

Couplers
Swell to Pedal
Swell to Great
Great to Pedal

[338] http://www.npor.org.uk/NPORView.html?RI=P00020 accessed 3.4.11

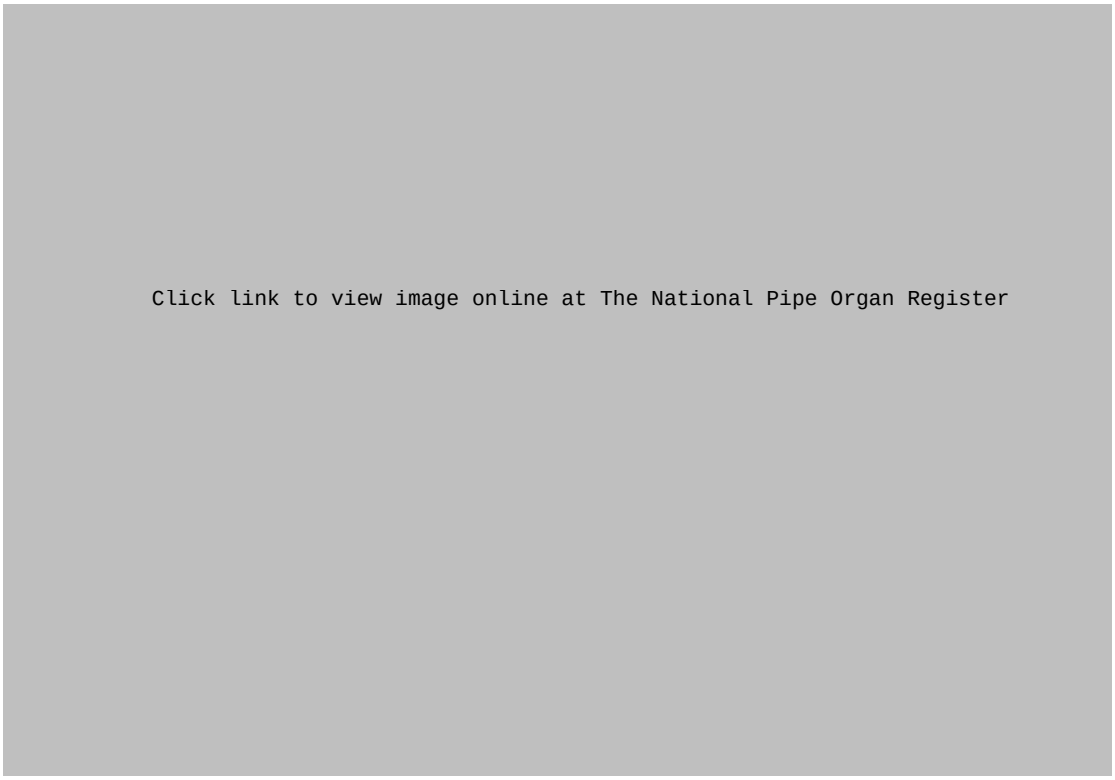

Illustration 4:5 All Saints, Winchester - console

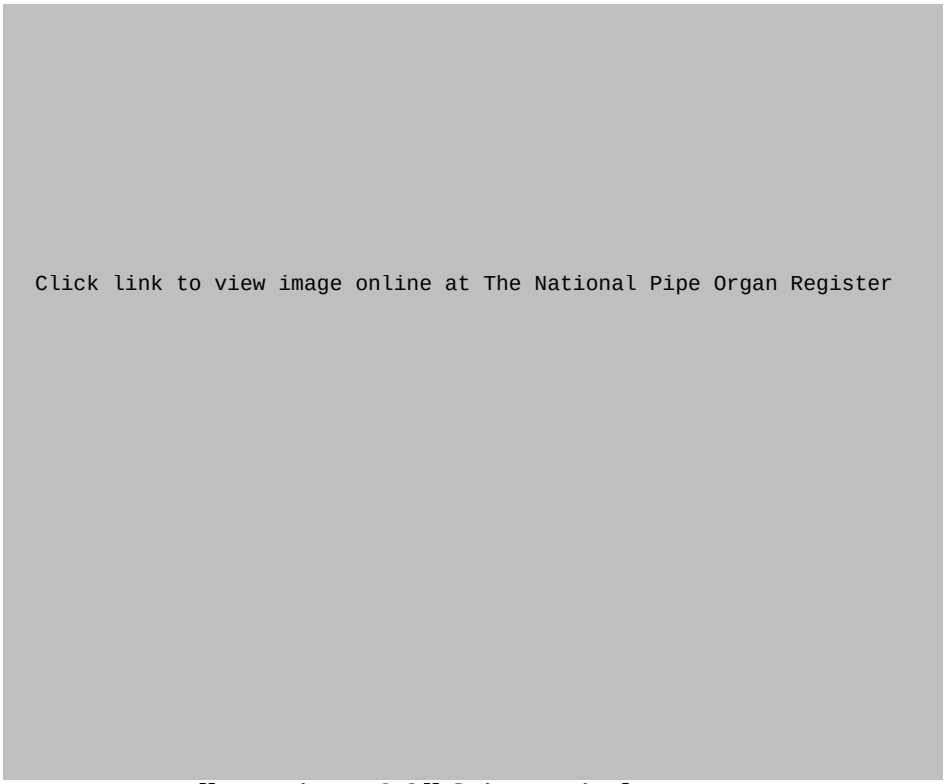

Illustration 4:6 All Saints, Winchester – case

Comment

The specification is of a type to be found in countless organs throughout Britain. A sense of chorus is in place on both manual divisions though no pitch above 4ft. is to be found. The 16ft. stop on the Swell does make the instrument more versatile, including a quasi-full swell effect when combined with the solitary reed – additionally, the 16ft. stop, when combined with the 4ft. stop, does, when played an octave higher, permit the player to create the effect of 8ft. and 2ft. stops.

4. St. Peter, Stratton, Gloucestershire[339]

Date/Builders: 1951 Harrison & Harrison, Durham (New organ)

	Pedal			**Swell**	
1	Bourdon	16	6	Violin Diapason	8
2	Flute	8	7	Salicional	8
			8	Gemshorn	4
	Great				
3	Open Diapason	8			
4	Claribel Flute	8			
5	Octave	4			

C**onsole**: Angled ebony jambs

Accessories balanced swell pedal;
2, 3 composition pedals

Couplers
Swell to Pedal
Swell to Great
Swell octave to Great
Swell octave
Great to Pedal

[339] http://www.npor.org.uk/NPORView.html?RI=N05787 accessed 4.6.10

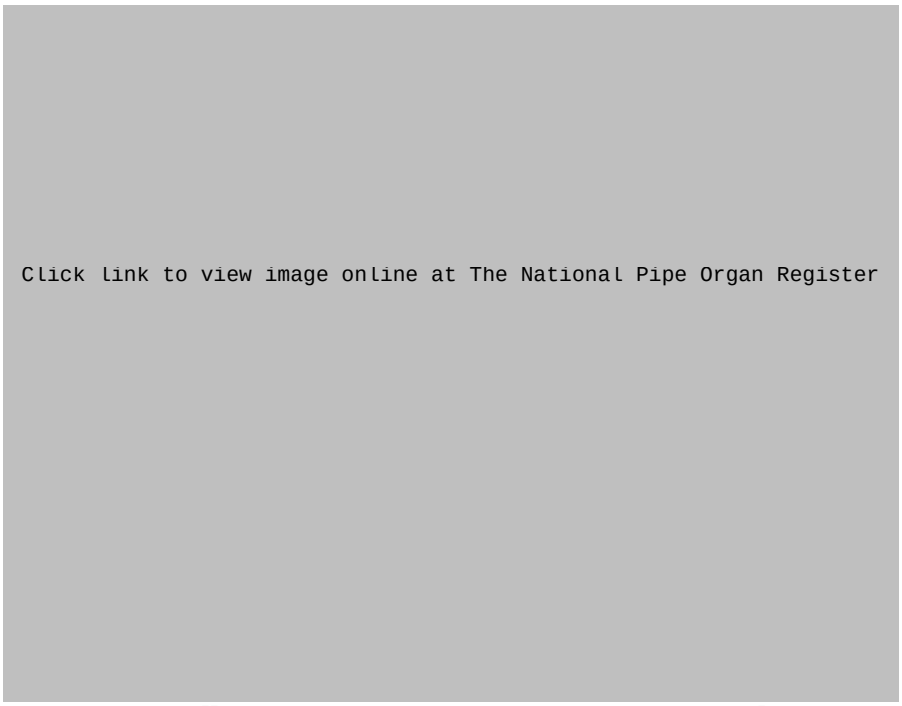

Illustration 4:7 St. Peter, Stratton – console

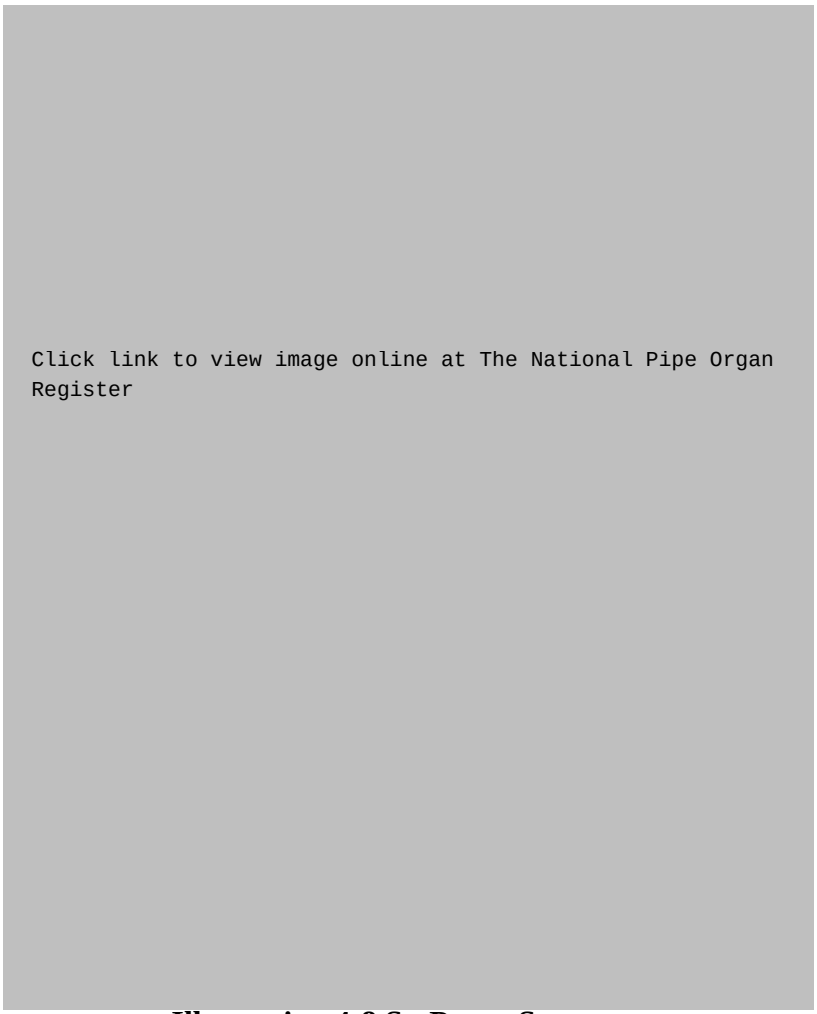

Illustration 4:8 St. Peter, Stratton – case

Comment

This appears to be a retrograde step in organ design, especially when compared with the organ built by Martenssons only 2 years later (see below). On the manuals four of the six stops are of 8ft. pitch and there are no stops above 4ft. pitch, though the octave couplers are clearly designed to add some brightness to the tonal scheme.

5. Swedish Seamen's Mission, Rotherhithe[340]

Date/Builders: 1953 Martenssons, Lund, Sweden

	Pedal			**Manual 2**	
1	Gedackt-Pommer	16	8	Rorflojt	8
2	Nachthorn	4	9	Kvintadena	4
			10	Gemshorn	2
	Manual 1		11	Kvartian	1⅓ & 1
3	Gedackt	8	13	Tremulant	
4	Principal	4			
5	Tackflojt	4			
6	Oktava	2			
7	Mixture	III			

Console: Pedalboard **Flat and straight**

Couplers
Manual I to Pedal
Manual II to Pedal
Manual II to Manual I

Accessories
Pedals for each coupler
Balanced Swell pedal

[340] http://www.npor.org.uk/NPORView.html?RI=N16180 accessed 3.6.10

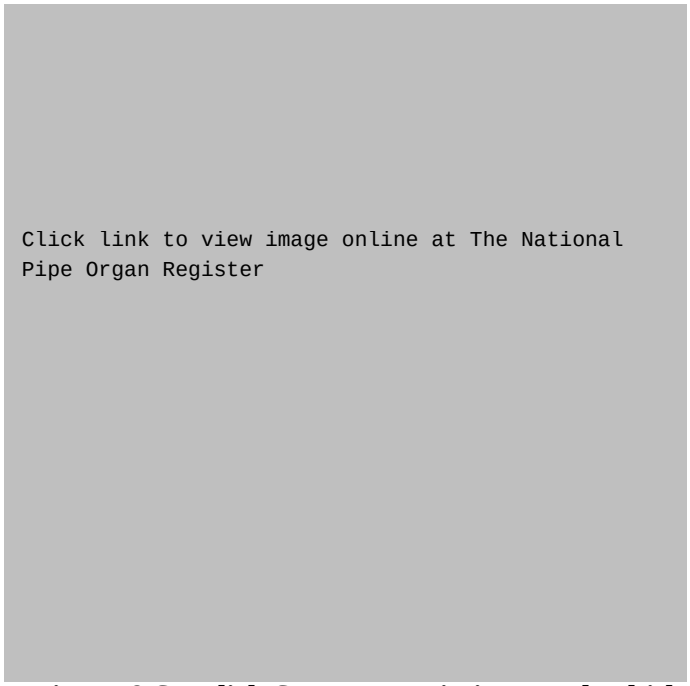

Illustration 4:9 Swedish Seamen's Mission, Rotherhithe – console

Illustration 4:10 Swedish Seamen's Mission, Rotherhithe – case

Comment

This instrument is an example of a true Classical design, with the clear focus being on achieving choruses on both manual divisions along with a sense of independence within a mere two stops on the Pedal. This type of instrument would create a challenge for playing the average contemporary British organ composition in 1953, though a few individuals (e.g. Peter Dickinson and Francis Jackson) were writing music suited for such tonal designs.

6. St. Helen, Wheathampstead, Hertfordshire[341]

Date/Builder: 1969 Hill, Norman & Beard (New organ)

	Pedal			**Swell**	
1	Sub Bass	16	9	Gedeckt	8
2	Gemshorn	8	10	Koppel Flute	4
3	Gemshorn	4	11	Principal	2
4	Gemshorn	2	12	Quint	1⅓
			13	Tremulant	
	Great				
5	Rohr Flute	8			
6	Principal	4			
7	Gedeckt	4			
8	Mixture	IV			

Console: Stop type **Drawstops**

Accessories
balanced pedal; 5 general pistons, capture system;
gt-pd reversible toe piston

Couplers
Swell to Pedal
Swell to Great
Swell octave to Great
Swell suboctave to Great
Great to Pedal

[341] http://www.npor.org.uk/NPORView.html?RI=N14176 accessed 3.6.11

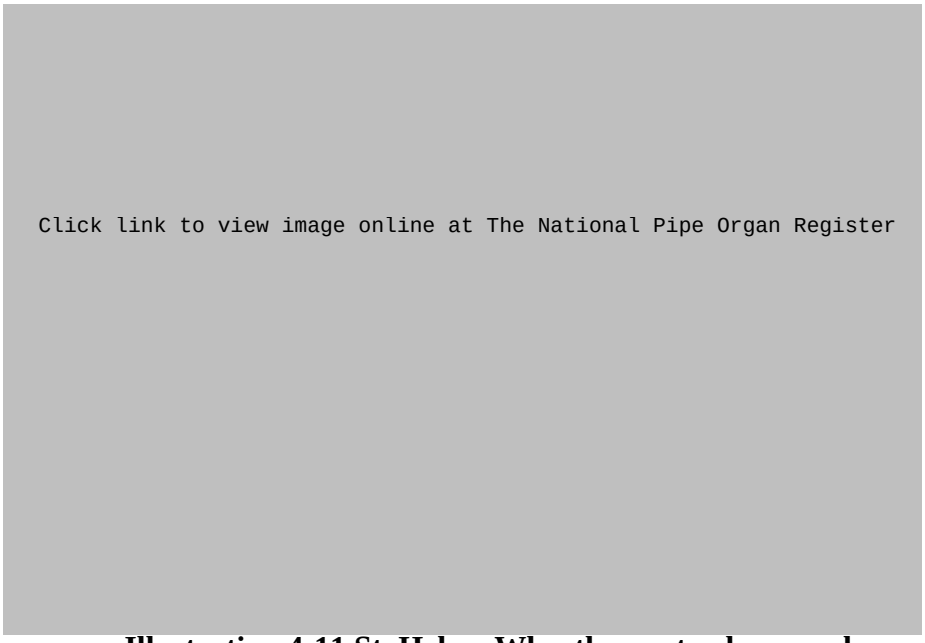

Illustration 4:11 St. Helen, Wheathampstead – console

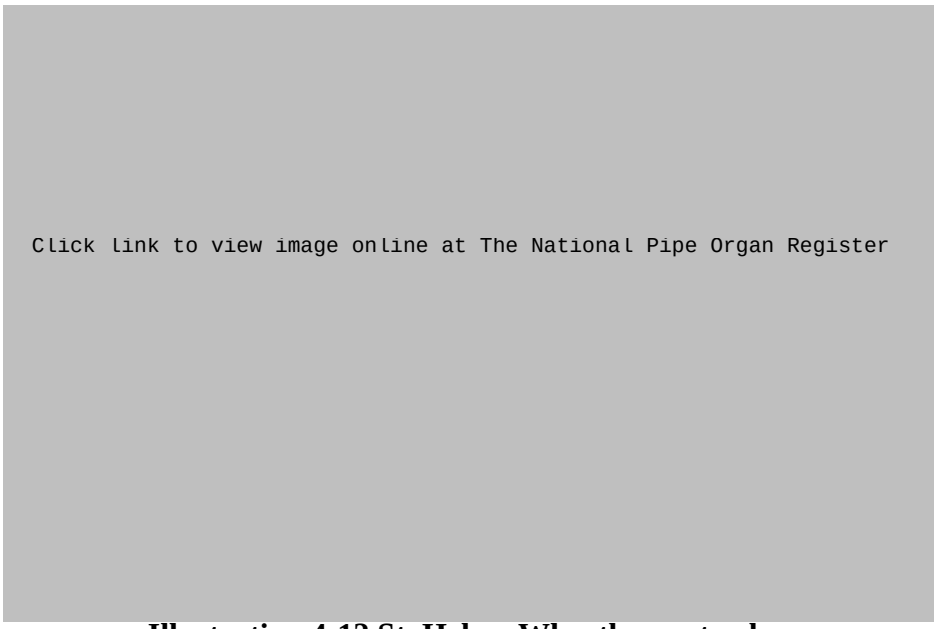

Illustration 4:12 St. Helen, Wheathampstead – case

Comment

This instrument's stop list and case design reveal the strong influence of classicism, but one which has not been fully absorbed due to the use of electric action, the inclusion of octave couplers and a detached console. There are choruses on all three divisions and the specification is clearly designed more for the eighteenth-century repertoire, along with more contemporary compositions by younger composers of the 1960s and 1970s.

4.5 Medium-scale instruments

Medium-scale instruments are typically found in average parish churches and certain schools, will have more ambitious tonal schemes and associated registration aids, but are not on the scale of acknowledged recital instruments such as to be found in concert halls, major parish churches, cathedrals and universities. The design of these instruments is still focused on the demands of liturgical music and possibly constrained by financial issues, but their versatility is considerably greater than that of the smaller instruments.

4.5.1 Number of manuals

Either two or three manuals would be the norm. A fourth manual would possibly be seen as moving into the large instrument category, though very occasionally schemes can be found where the builders have expanded what was really a three-manual scheme into four manuals (c.f. Lancing College's Walker organ of 1986[342] for which the fourth manual (Solo) has not only just 2 stops but also 2 pistons are available to control them).

4.5.2 Number of stops

The range of stops on each division is greater here with a chorus available on most, if not all, of the manual divisions.

4.5.3 Size of Pedal division

The Pedal division will have more than the solitary 16ft. Bourdon normally to be found in small instruments, but extension might well be used extensively, especially in

[342] http://www.npor.org.uk/NPORView.html?RI=N09210 accessed 5.7.09

traditional instruments, with maybe only 2 or 3 basic ranks forming the division: e.g. 16ft. Open Wood extended to 8ft., Bourdon 16ft. and 8ft. (and a 4ft. occasionally) and a reed 16ft. which might go to 8ft.; stops might also be borrowed from the manuals, giving the impression of a larger division e.g. a quieter 16ft. flue (such as a Lieblich Bourdon 16ft.) might come from the Swell. With traditional instruments a complete independent chorus is less likely to be found, with the Pedal relying heavily on the use of manual to pedal couplers, but the influence of the organ reform can be seen with growing awareness of the importance of designing a Pedal division with sufficient stops to act independently.

4.5.4 Couplers

The usual range of couplers will be found, though on a three-manual organ the Choir to Great might be omitted for two reasons – firstly, if the action is mechanical or pneumatic the builder/consultant might have felt s/he could not justify the expense or design challenge in providing this coupler, and, secondly, if the Choir division was of a relatively insignificant tonal design then it was not considered necessary to couple the stops through to the Great.

4.5.5 Swell box

With a two-manual instrument in virtually all cases the second manual will be enclosed; if the organ has three manuals then traditional style instruments might have two out of the three divisions enclosed (i.e. the Choir as well as the Swell) but with Classical designs only the Swell division will be enclosed (and on rare occasions no

division will be enclosed – York University's[343] new organ by Grant, Degen and Bradbeer, built in a very severe Classical manner, had no swell box, though this was more to do with financial restraints rather than ideological grounds. The organ was remodelled in 1983 and the Oberwerk division was enclosed).

4.5.6 Registration aids

With the increase in the number of stops on medium-scale instruments it is to be expected that there would be a corresponding increase in registration aids, but this varies considerably, with factors such as the age of the instrument, the actions used and financial resources all playing their part. At the very least the minimum expectation would be a few combination pedals each to the Great (and maybe Pedal combined) and Swell, with possibly reversible pedals for Great to Pedal (and sometimes Swell to Great). Thumb pistons on pneumatic and electric action instruments might be found (but again not necessarily so); switch setting systems might be available but the prohibitive cost of adjustable systems in the period 1945-1970 restricts such luxuries to only the wealthiest establishments.

The repertoire that suits these organs includes the material mentioned in small-scale organs but also the increased tonal resources means more ambitious music might be tackled. Pieces that clearly demand three manuals and greater flexibility include music by, Howells, Mathias, Whitlock, and Wills.

[343] http://www.npor.org.uk/NPORView.html?RI=N03920 accessed 5.7.09

4.5.7 Examples of medium-scale organs

1. Three manuals, 27 stops built 1907 (traditional) - St Cross Chapel, Winchester
2. Three manuals, 29 stops built 1920 (traditional) - St. John the Baptist, Yeovil
3. Two manuals, 31 stops built 1954 (traditional) - St. Andrew, Biggleswade
4. Two manuals, 23 stops built 1963 (extension) - St. Fillan, Aberdour
5. Two manuals, 22 stops built 1965 (Classical) – The Queen's College Chapel, Oxford
6. Two manuals, 21 stops built 1968 (Classical) - All Saints, Faringdon

1. St Cross Chapel, Winchester[344]

Date/Builder: 1907 J.W.Walker

	Pedal			**Choir**	
1	Open Diapason	16	5	Stopped Diapason	8
2	Bourdon	16	6	Dulciana	8
3	Flute	8	7	Flute	4
4	Trombone	16	8	Piccolo	2
			9	Clarinet	8
	Great			**Swell**	
10	Double Diapason	16	19	Lieblich Bourdon	16
11	Open Diapason Large	8	20	Bell Diapason	8
12	Open Diapason	8	21	Stopped Diapason	8
13	Wald Flute	8	22	Echo Gamba	8
14	Principal	4	23	Voix Celeste	8
15	Harmonic Flute	4	24	Principal	4
16	Fifteenth	2	25	Mixture	III
17	Mixture	III	26	Horn	8
18	Trumpet	8	27	Oboe	8
			28	Tremulant	

Console
Stop type **Drawstop**
Pedalboard **Radiating concave**
Accessories
Swell: balanced pedal, 4 composition pedals; Great: 4 composition pedals, Great to Pedal lever.

Couplers
Swell to Pedal
Swell to Great
Swell to Choir
Swell octave
Swell suboctave
Swell unison off
Choir to Pedal
Great to Pedal

[344] http://www.npor.org.uk/NPORView.html?RI=N11466 accessed 4.6.10

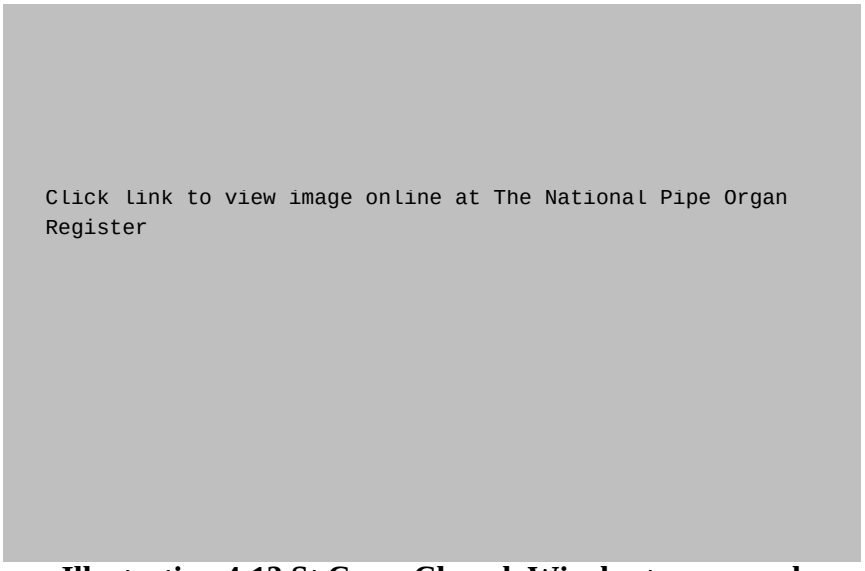

Illustration 4:13 St Cross Chapel, Winchester – console

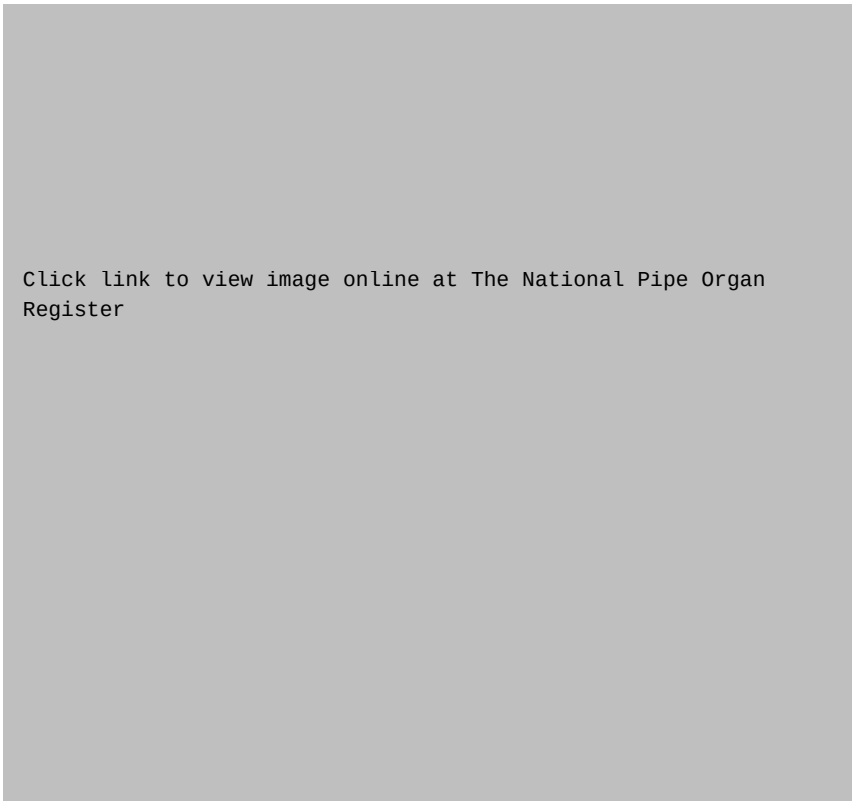

Illustration 4:14 St Cross Chapel, Winchester - case

Comment

This is quite a comprehensive stop list, with complete choruses on both Great and Swell and considerable tonal variety, though the lack of a 2ft. stop on the Swell is not unusual for the period. The use of pneumatic action allows for two octave couplers along with the Swell unison off, increasing the versatility of the instrument, though the registration aids are limited to combination pedals despite the stop action being pneumatic.

2. St. John the Baptist, Yeovil, Somerset[345]

Date/Builders: 1920 Harrison & Harrison, Durham

	Pedal			**Choir**	
1	Open Wood	16	7	Lieblich Gedact	8
2	Sub Bass	16	8	Flauto Traverso	4
3	Dulciana	16	9	Flageolet	2
4	Octave Wood	8	10	Clarinet	8
5	Flute	8	11	Tromba	8
6	Ophicleide	16			
				Swell	
	Great		21	Violin Diapason	8
12	Bourdon	16	22	Wald Flute	8
13	Large Open Diapason	8	23	Echo Gamba	8
14	Small Open Diapason	8	24	Vox Angelica	8
15	Stopped Diapason	8	25	Gemshorn	4
16	Octave	4	26	Mixture	III
17	Flute	4	27	Contra Oboe	16
18	Octave Quint	2⅔	28	Trumpet	8
19	Super Octave	2	29	Clarion	4
20	Mixture	III	30	Tremulant	

Console Stop type **Drawstop**
Accessories
4 thumb pistons to Great, 5 to Swell
2 thumb pistons to Choir
Thumb pistons for Gt-Pd, Sw-Gt, Oboe
3, 1 composition pedals
1 toe piston
Pedal to Great pistons

Couplers
Swell to Pedal
Swell to Great
Swell to Choir
Swell octave
Swell unison off
Choir to Great
Choir to Pedal
Great to Pedal

[345] http://www.npor.org.uk/NPORView.html?RI=N06914 accessed 2.6.10

Illustration 4:15 St. John the Baptist, Yeovil – console

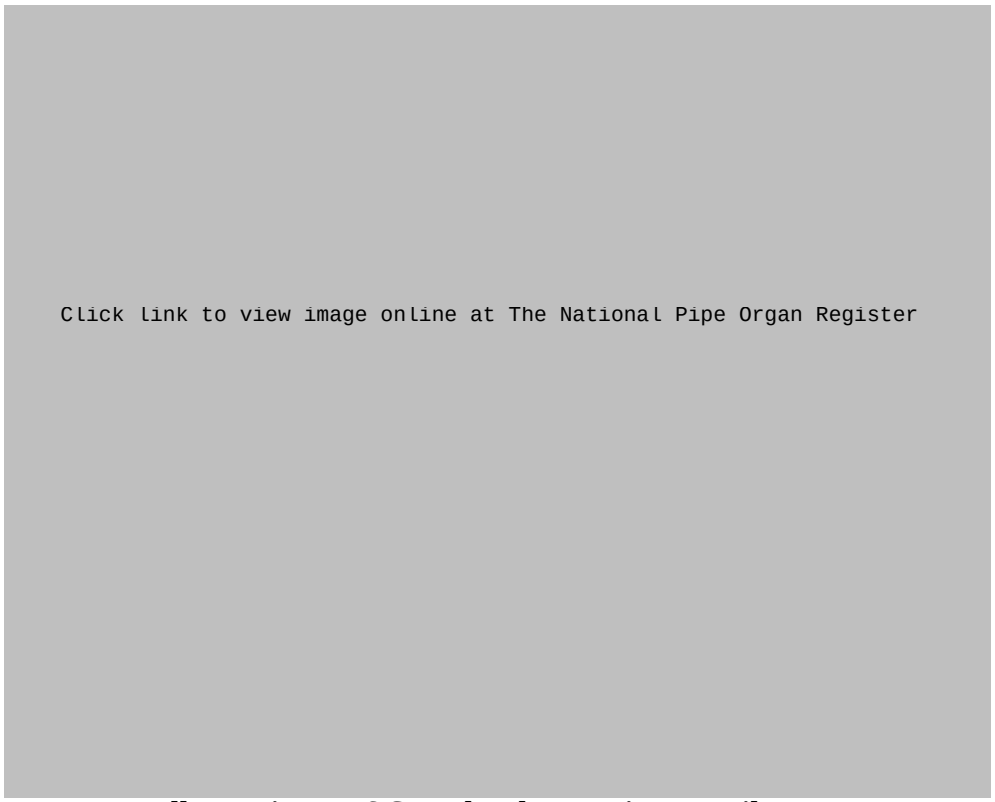

Illustration 4:16 St. John the Baptist, Yeovil – case

Comment

This is a more ambitious scheme in which is included a 16ft. reed on the Swell and this allows a traditional full Swell registration to be used; the Choir is, as is common in this period, a secondary division, though the Tromba 8ft. is slightly unusual, such a stop more typically being found on the Great and then made available on the Choir by transmission. Registration aids are quite generous but are of the fixed type.

3. St. Andrew, Biggleswade, Bedfordshire[346]

Date/Builders: 1954 J.W. Walker, London

	Pedal	
1	Acoustic Bass	32
2	Open Diapason	16
3	Bourdon	16
4	Echo Bass	16
5	Octave	8
6	Bass Flute	8
7	Octave Flute	4
8	Fagotto	16
9	Tromba	8
	Great	
10	Double Diapason	16
11	Open Diapason No.1	8
12	Open Diapason No.2	8
13	Stopped Diapason	8
14	Dulciana	8
15	Principal	4
16	Wald Flute	4
17	Twelfth	2⅔
18	Fifteenth	2
19	Mixture	II
20	Tromba	8

	Swell	
21	Open Diapason	8
22	Stopped Diapason	8
23	Salicional	8
24	Voix Celeste	8
25	Gemshorn	4
26	Fifteenth	2
27	Mixture	III
28	Contra Fagotto	16
29	Cornopean	8
30	Oboe	8
31	Tremulant	
32	Tromba (Gt.)	8

Couplers
Swell to Pedal
Swell to Great
Swell octave to Great
Swell suboctave to Great
Swell octave
Swell suboctave
Great to Pedal

Console Stop type **Stopkey** Pedalboard **Radiating Concave**
Accessories
4 thumb pistons to Great
4 thumb pistons to Swell

[346] http://www.npor.org.uk/NPORView.html?RI=N09369 accessed 4.6.10

4 toe pistons to Great
4 toe pistons to Swell
Great and Pedal combinations coupled
Double touch canceller
Reversible thumb piston for Sw-Gt, Gt-Pd; Reversible toe piston for Gt-Pd
balanced swell pedal; setter boxes for pistons both sides of console

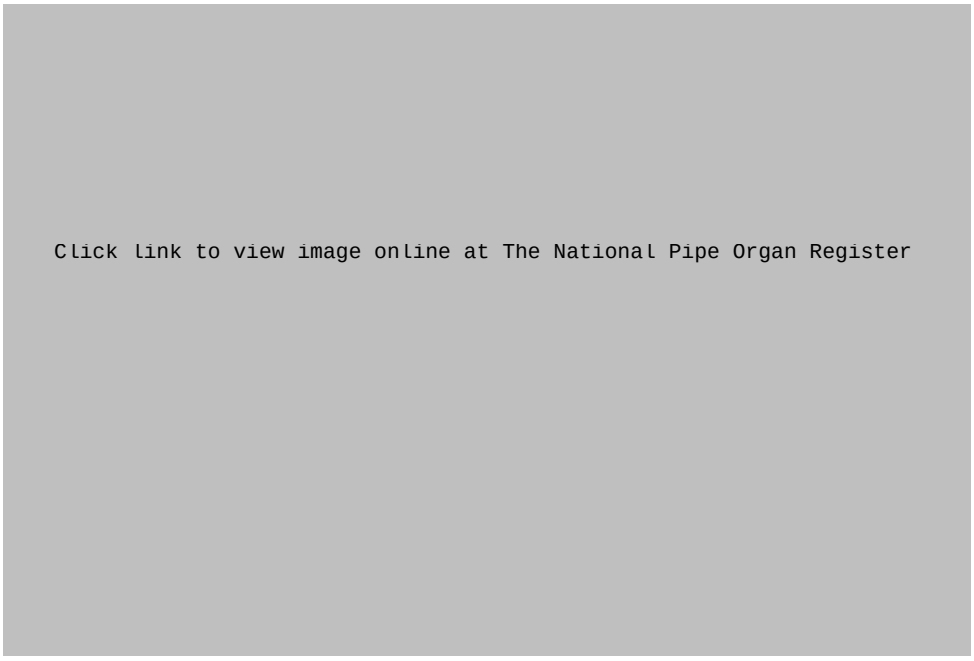

Illustration 4:17 St. Andrew, Biggleswade – console

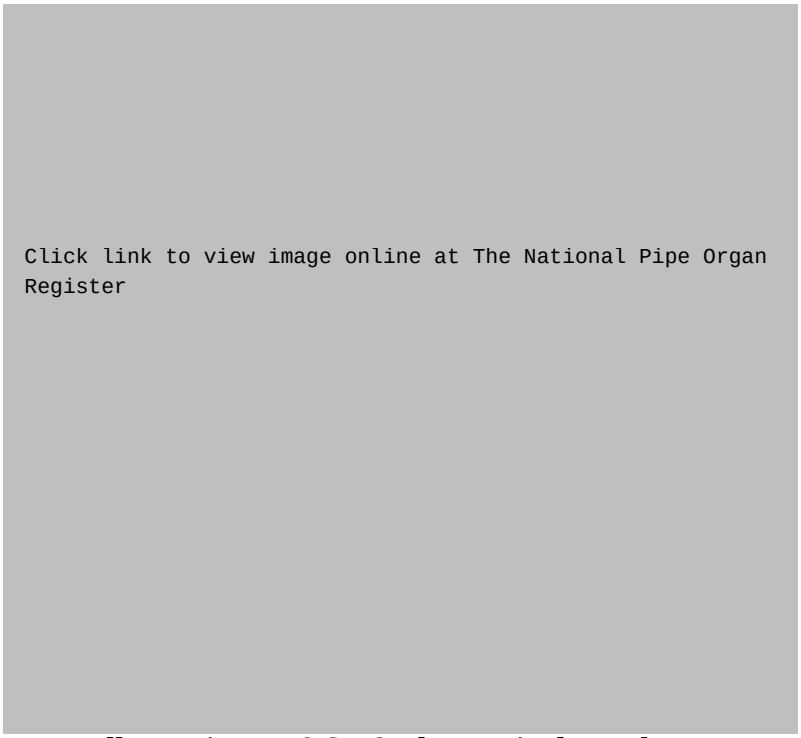

Illustration 4:18 St. Andrew, Biggleswade - case

Comment

The large number of stops would suggest this might have been conceived initially as a three-manual instrument but the fact that it is spread over two manuals, along with a stop key console, would seem to suggest that space and finance precluded the third manual. The year of installation is the same as that of the organ built for the Royal Festival Hall, but the tonal design is very much in the traditional mould.

4. St. Fillan, Aberdour, Fife[347]

Date/Builder: 1963 J.W. Walker (three-rank extension organ)

	Pedal				Positive		
1	Sub Bass	16	A	16	Gedeckt	8	A
2	Principal	8	B	17	Dulciana	8	C
3	Bass Flute	8	A	18	Principal	4	B
4	Fifteenth	4	B	19	Gedeckt Flute	4	A
5	Octave Flute	4	A	20	Twelfth	2⅔	A
6	Octavin	2	A	21	Fifteenth	2	B
7	Mixture	II	B	22	Tierce	1⅗	A
				23	Mixture	II	B
	Great						
8	Open Diapason	8	B				
9	Gedeckt	8	A				
10	Dulciana	8	C				
11	Principal	4	B				
12	Dolcet	4	A				
13	Twelfth	2⅔	A				
14	Fifteenth	2	B				
15	Mixture	II	B				

Console Stop type **Stopkeys** Pedalboard **Radiating Concave**

Accessories

3 thumb and toe pistons to Great and Pedal
3 thumb and toe pistons to Positive
Balanced expression pedal to Flute (A) rank

[347] http://www.npor.org.uk/NPORView.html?RI=C01061 accessed 5.6.11

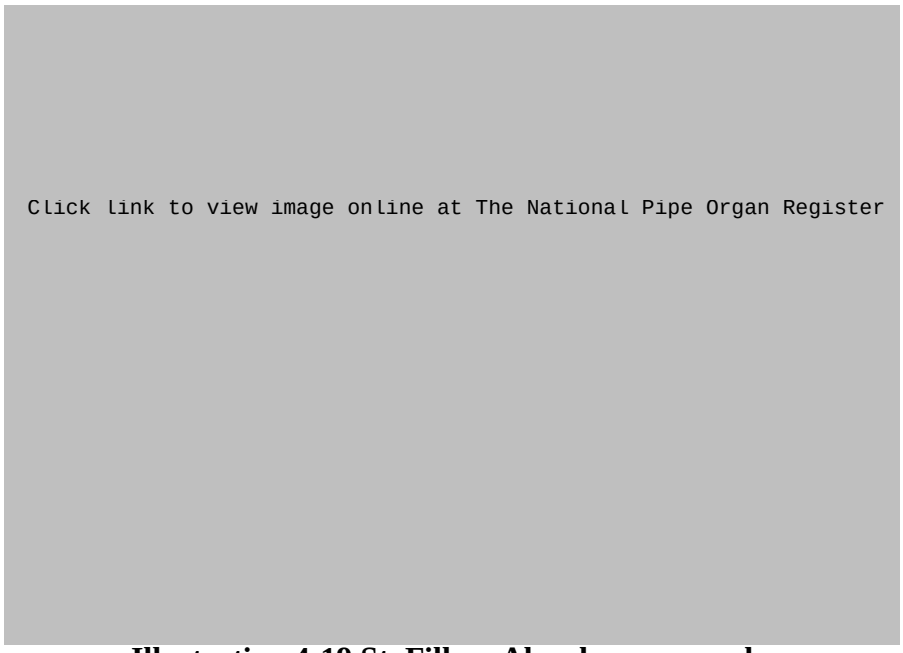

Illustration 4:19 St. Fillan, Aberdour – console

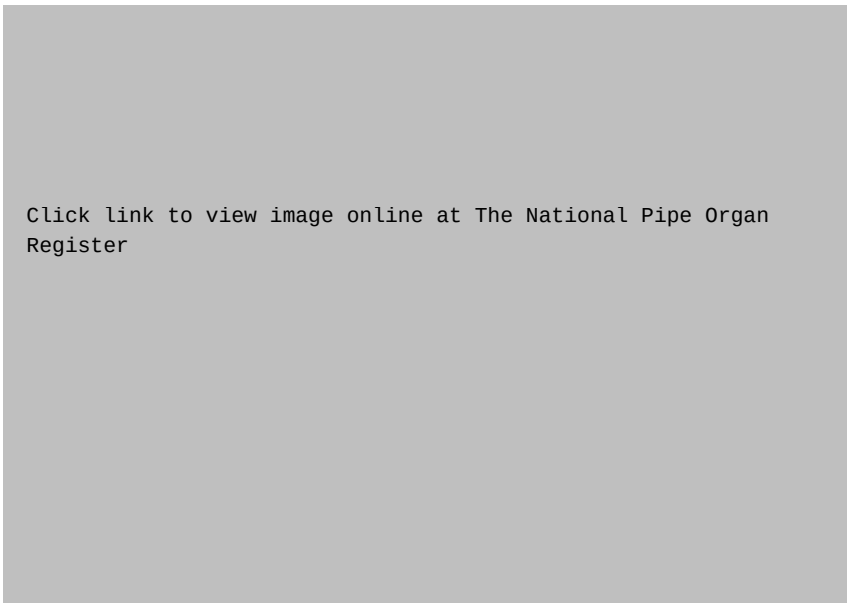

Illustration 4:20 St. Fillan, Aberdour - case

Comment

A classic example of what appears initially to be a comprehensive tonal scheme but on closer inspection is predominately a two-rank extension organ (the third rank, a Dulciana, is not extended and merely appears at 8ft. pitch on both manuals). Whilst the specification does allow for some variety in registration, particularly since there is

extensive upperwork, there are musical limitations, due to the tuning problems that arise when mutation stops are drawn from the same pipes as the unison stops.

5. The Queen's College Chapel, Oxford[348]

Date/Builders: 1965 Th. Frobenius, Copenhagen, Denmark

	Pedal			**Brustpositiv**	
1	Subbass	16	16	Gedeckt	8
2	Principal	8	17	Principal	4
3	Gedeckt	8	18	Rohrflute	4
4	Octave	4	19	Gemshorn	2
5	Mixture	III	20	Quint	1⅓
6	Fagot	16	21	Scharf	III
7	Schalmei	4	22	Chromorne	8
			23	Tremulant	
	Great				
8	Gedeckt	16			
9	Principal	8			
10	Rohrflute	8			
11	Octave	4			
12	Octave	2			
13	Sesquialtera	II			
14	Mixture	IV			
15	Trumpet	8			

Console
Stop type **Drawstops** Pedalboard **Concave Radiating**

Couplers
Great to Pedal
Brustpositiv to Pedal
Brustpositiv to Great

Accessories
Balanced Swell pedal

[348] http://www.npor.org.uk/NPORView.html?RI=N08080 accessed 5.6.10

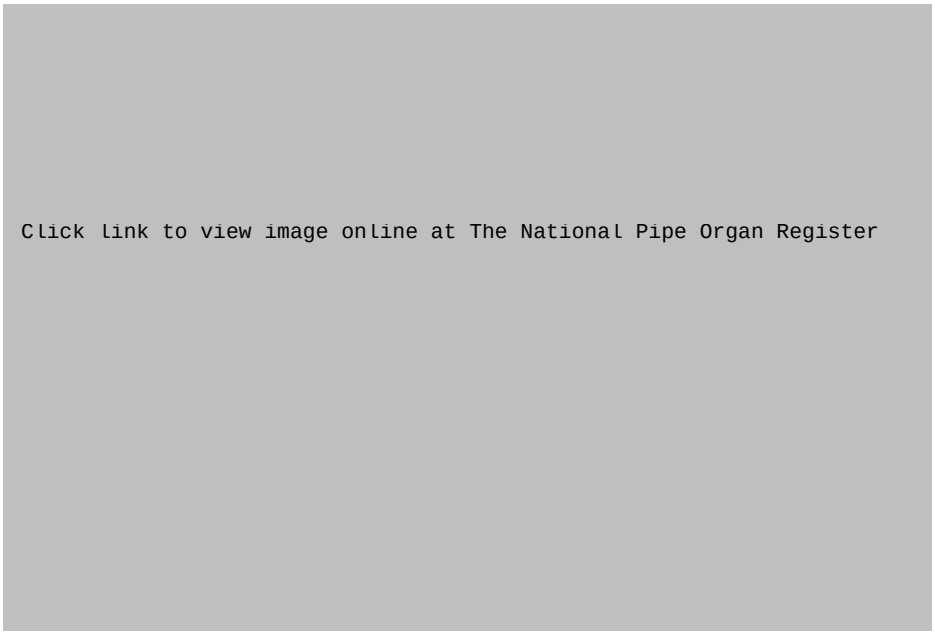

Illustration 4:21 The Queen's College Chapel, Oxford – console

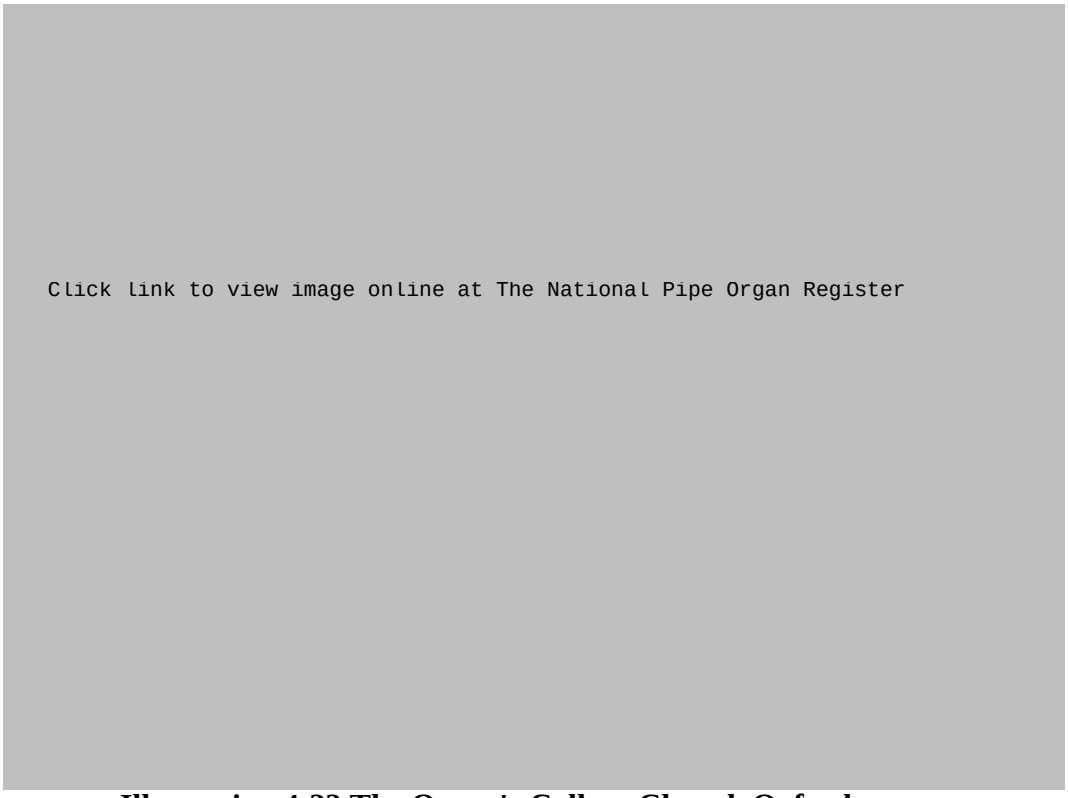

Illustration 4:22 The Queen's College Chapel, Oxford – case

Comment

A landmark organ that was very influential at the time and even today is still very highly regarded, in part due to its particularly high quality of build. Whilst severely

Classical in design, with full mechanical action throughout and no registration aids, there is a nod to traditional instruments with the inclusion of an enclosed division controlled by a balanced swell pedal.

6. All Saints Faringdon, Berkshire[349]

Date/Builders: 1968 Grant, Degens & Bradbeer Ltd

	Pedal			**Swell**	
1	Subbass	16	16	Gedackt	8
2	Octave	8	17	Salicional	8
3	Gedackt	8	18	Koppelflöte	4
4	Choral Bass	4	19	Principal	2
5	Fagott	16	20	Scharff	IV
6	Trumpet	8	21	Sesquialtera	II
			22	Trompette	8
	Great		23	Tremulant	
7	Quintade	16			
8	Principal	8			
9	Rohrflöte	8			
10	Octave	4			
11	Spitzflöte	4			
12	Blockflöte	2			
13	Mixture	IV			
14	Rohrschalmei	8			
15	Tremulant				

Console Stop type Tilting tablets Pedalboard radiating concave
Stop keys have double-touch cancelling

Couplers
Swell to Pedal
Swell to Great
Swell suboctave to Great
Great to Pedal

Accessories
3 pistons to each division
2 general pistons
Reversible pistons for Pedal couplers

[349] http://www.npor.org.uk/NPORView.html?RI=N09931 accessed 2.5.11

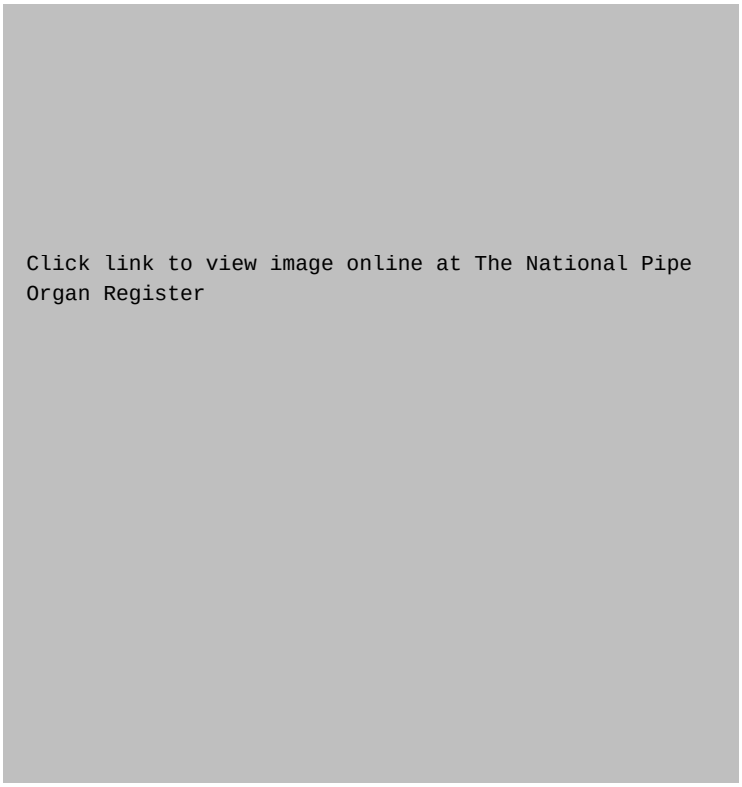

Illustration 4:23 All Saints, Faringdon – console

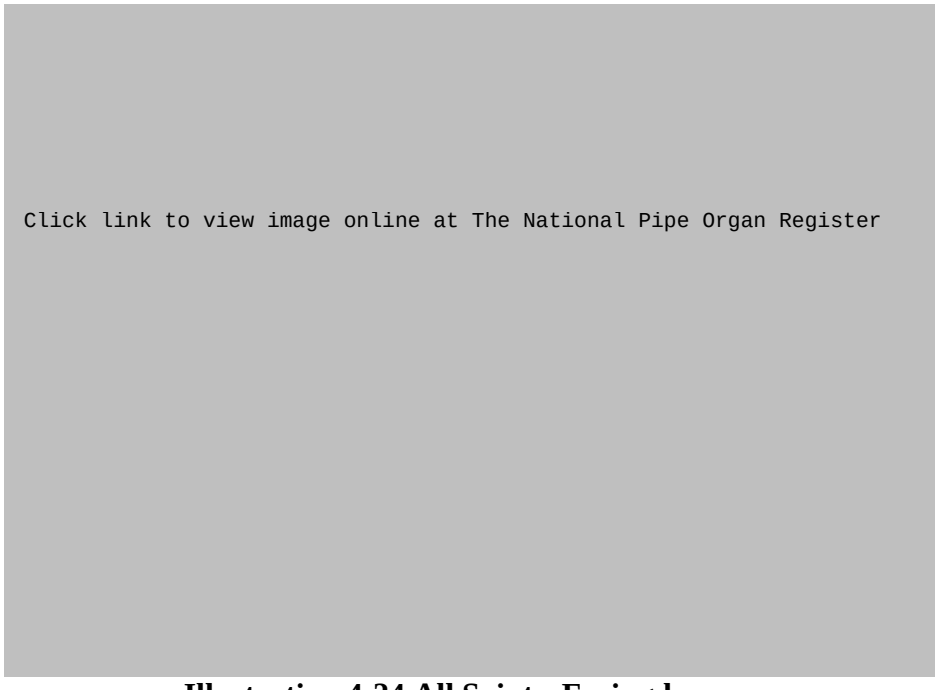

Illustration 4:24 All Saints, Faringdon – case

Comment

This organ's specification shows an ambitious move to classicism, though the use of electric action and a detached console were necessitated by space limitations in the church. That this is an organ caught between the traditional school and the classical school can be seen by the mix of English and German stop names and also the inclusion of the suboctave to Great coupler (suggesting a wish to achieve a quasi-Full Swell effect).

4.6 Large-scale instruments

The final category, large-scale instruments, covers major installations in places such as concert halls, cathedrals, large parish churches, universities and chapels of major schools. These can be considered as professional instruments, ones that are clearly designed for major concert work, although many are also used extensively for liturgical work i.e. those in religious buildings; those in concert halls are designed both for the performance of the solo organ repertoire and for their role in concertante music. With these instruments it can be expected that their comprehensive size, tonal and dynamic range and registration aids enables players to perform much, if not all, of the standard repertoire of 1945-1970 with comparative ease. One commentator in the 1960s listed the following attributes as being needed to make up the ideal concert hall organ, such an

instrument in Peter Clark's[350] view as being the instrument in the Victoria Hall, Halifax:[351]

- Principal flue chorus up to Mixtures
- For Bach type fugal writing there is a secondary chorus for contrast
- The Pedal is independent
- There is one dominating manual reed *(this might have been a subtle criticism of the organ in the Royal Festival Hall where Ralph Downes in his planning deliberately omitted any such stop)*
- The Pedal has 4ft. stops
- There are soft stops e.g. Dulciana, Celeste
- There are substantial parts of the organ enclosed
- Mutations are included
- A loud climax is possible

4.6.1 Number of manuals

The organs in this category should be expected to have at least three manuals, though more often than not there will be four manuals, with a few stretching to five manuals (e.g. Westminster Abbey and the organs in the cathedrals of St Paul's, Liverpool and Wakefield). Occasionally a three-manual console might in fact control

[350] Clark, P.E. (1964) The Victoria Hall Organ, Halifax. *The Organ* July Vol. XLIV no.173 p5

[351]The Victoria Hall, Halifax Organ by Hill 1901/rebuilt Rushworths 1963 (originally 4 manuals)
Gt: 16 8 8 8 8 4 4 2⅔ 2 IV 16 8 4 (unit); Sw: 16 8 8 8 8 4 4 2⅔ 2 IV 8 16 8 4 Ch: 16 8 8 4 4 2⅔ 2 1⅗ 11/7 III 16 8 4 (great); Pedal: 32 16 16 16 16 8 8 8 5⅓ 4 4 IV 16 16 8 8 4

another floating division (and in the case of four and five-manual consoles this is not unusual).

4.6.2 Number of stops

A very comprehensive range of stops will be found, with the Great and Swell divisions having a complete chorus; the Choir is likely to have a more focused identity (but not always with organs dating back to the late nineteenth century – see Oxford Town Hall below) whilst the Solo (if included) rarely has any sense of real cohesion, but rather serves as a place to collect together individual stops with distinct tonal and dynamic characteristics (but see e.g. Gloucester Cathedral where the Solo has been dispensed with, replaced by Positive division).

4.6.3 Size of Pedal division

This will be far more comprehensive in the majority of cases, but not all. In the same way as medium-scale instruments the extension of major ranks will be quite common, even in mechanical-action organs and even with new instruments, and sometimes the designs incorporated very heavy borrowing from the manuals. Commonly most, if not all, 16ft. manual stops are duplicated on the Pedal – there is logic in this, giving greater variety of stop choice on the Pedal without having to tie up a keyboard by coupling it to the Pedal.

4.6.4 Couplers

These will normally be very comprehensive, with virtually every permutation possible being available on pneumatic and electric actions. Octave, sub-octave and (less

commonly) unison off couplers will be found on Swell, Choir and Solo divisions, particularly when it seems the builder has not full faith in the organ being loud or versatile enough. These particular couplers became less common as the ORM took a grip, with builders, consultants and players beginning to understand that these couplers have little artistic merit if one is striving for clarity in the overall sound.

4.6.5 Swell box

Enclosed divisions will be quite in abundance in the more traditional instruments; again there is a conspicuous reduction in the number in the latter part of this period due to the organ reform movement.

4.6.6 Registration aids

These are likely to be both plentiful and versatile, with divisionals, generals and reversibles. Adjustable pistons, either by setter or switch, will be found, though setter systems were still very expensive in this period and even large instruments had only switch systems.[352] There are some notable exceptions with very limited registration aids e.g. the organ in Trinity College Chapel, Cambridge, is a three-manual instrument built by Metzler in 1975, with 44 stops and full mechanical action, and has just two combination pedals to the Great (Hauptwerk) and one reversible pedal (for the Pedal Posaune).[353]

[352] e.g. Winchester Cathedral's large Harrisons organ of 1938 still had selector switches for all the pistons in the middle 1970s (author's experience).
[353] Thistlethwaite, N. (2008) *The Organs of Cambridge* Oxford: Positiv Press

4.6.7 Examples of large-scale organs:

1. Four manuals, 35 stops, built 1897 (concert hall – traditional) Oxford Town Hall
2. Four manuals, 90 stops, built 1930 (cathedral – traditional) Peterborough Cathedral
3. Three manuals, 97 stops, built 1936 (church - extension system) St Luke's, Chelsea
4. Four manuals, 97 stops, built 1954 (concert hall new – traditional) Colston Hall
5. Three manuals, 48 stops, built 1969 (college chapel new – Classical) New College, Oxford
6. Three manuals, 54 stops, built 1971 (cathedral – neo-classical rebuild) Gloucester Cathedral

1. Oxford Town Hall, Oxford[354]

Date/Builders: 1897 Henry Willis & Sons, London

	Pedal			**Swell**	
1	Open Diapason	16	21	Bourdon	16
2	Bourdon	16	22	Open Diapason	8
3	Violoncello	8	23	Stopped Diapason	8
4	Ophicleide	16	24	Salicional	8
			25	Voix Celeste	8
	Choir		26	Principal	4
5	Viola da Gamba	8	27	Piccolo	2
6	Dulciana	8	28	Trombone	16
7	Clarabella	8	29	Oboe	8
8	Concert Flute	4	30	Cornopean	8
9	Piccolo	2	31	Vox Humana	8
10	Cremona	8	32	Clarion	4
			33	Tremulant	
	Great				
11	Double Open Diapason	16		**Solo**	
12	Open Diapason	8	34	Harmonic Flute	8

[354] http://www.npor.org.uk/NPORView.html?RI=N08021 accessed 4.7.10

13	Open Diapason	8	35	Orchestral Oboe	8
14	Clarabella	8	36	Tromba	8
15	Principal	4			
16	Flute	4			
17	Twelfth	3			
18	Fifteenth	2			
19	Sesquialtera	II			
20	Trumpet	8			

Console Stop type **Large knobs** Pedalboard **Radiating concave**

Couplers
Swell to Great
Swell to Choir
Solo to Great
Swell to Pedals
Great to Pedals
Choir to Pedals
Solo to Pedals

Accessories
4 composition pedals to Great and Pedal
4 composition pedals to Swell
1 toe pedal [Solo-Great]
Pistons for Sw-Gt, Gt-Pd
lever pedal

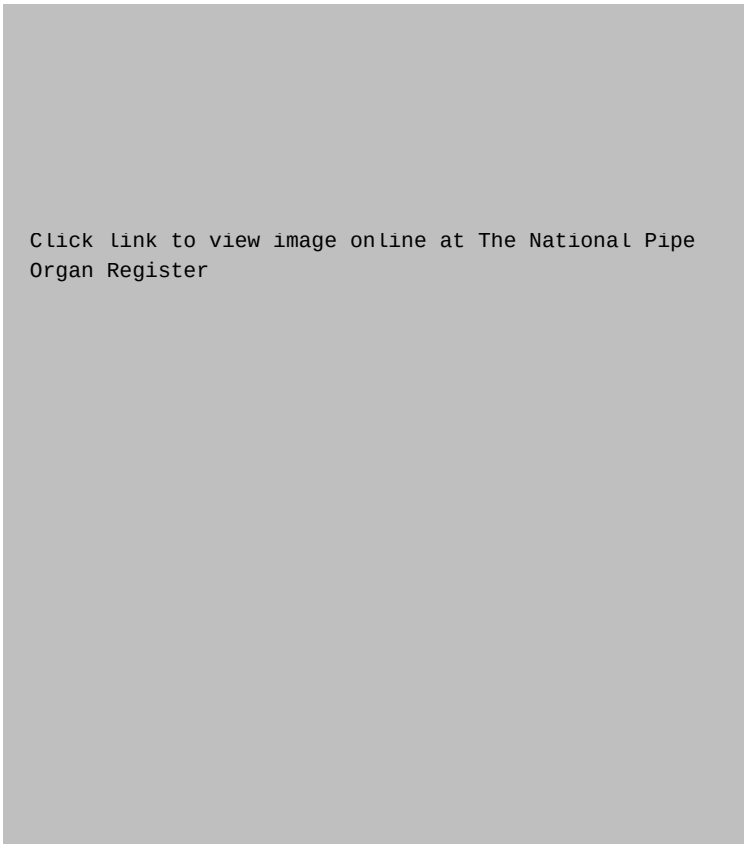

Illustration 4:25 Oxford Town Hall – console

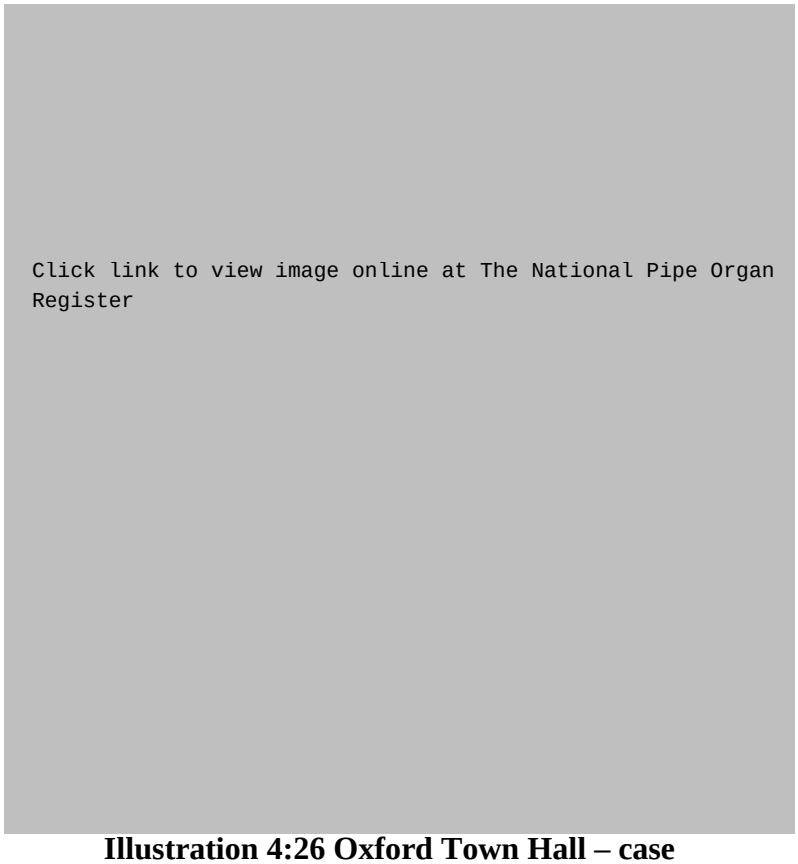

Illustration 4:26 Oxford Town Hall – case

Comment

A rare example of a concert hall organ, dating from the late Victorian period, which has remained unchanged from its original conception. A wealth of colour is available but the restricted registration aids and the lever swell pedal provide challenges for the player.

2. Peterborough Cathedral, Peterborough[355]

Date/Builders: 1930 William Hill & Norman & Beard

	Pedal			Swell			Solo	
1	Double Open Wood	32	44	Keraulophon	16	79	Quintaton	16
2	Open Diapason	16	45	Open Diapason I	8	80	Violoncello	8
3	Open Diapason	16	46	Open Diapason II	8	81	Viole d'Orchestre	8
4	Open Diapason	16	47	Rohr Flote	8	82	Viole Celeste	8
5	Violone	16	48	Salicional	8	83	Concert Flute	8
6	Bourdon	16	49	Vox Angelica	8	84	Unda Maris II	8
7	Quintaton	16	50	Principal	4	85	Flauto Traverso	4
8	Double Dulciana	16	51	Salicet	4	86	Lieblich Flote	4
9	Octave	8	52	Waldflote	4	87	Double Clarinet	16
10	Principal	8	53	Fifteenth	2	88	Orchestral Clarinet	8
11	Bass Flute	8	54	Mixture	III	89	Orchestral Oboe	8
12	Dolce	8	55	Cymbal	IV	90	Vox Humana	8
13	Mixture	II	56	Double Trumpet	16	91	Tuba	16
14	Contra Trombone	32	57	Contra Oboe	16	92	Tuba	8
15	Ophicleide	16	58	Horn	8	93	Tremulant	
16	Trombone	16	59	Trumpet	8			
17	Contra Oboe	16	60	Oboe	8			
18	Clarinet	16	61	Clarion	4			
19	Trumpet	8	62	Tremulant				

	Great			Choir	
20	Sub Bass	32	63	Gedeckt	16
21	Double Open Diapason	16	64	Open Diapason	8
22	Bourdon	16	65	Violoncello	8
23	Double Dulciana	16	66	Dulciana	8
24	Diapason Phonon	8	67	Echo Gamba	8
25	Open Diapason 1	8	68	Lieblich Gedeckt	8
26	Open Diapason 2	8	69	Suabe Flote	4
27	Open Diapason 3	8	70	Dulcet	4
28	Geigen Diapason	8	71	Flautina	2
29	Hohl Flote	8	72	Dulciana Mixture	III
30	Harmonic Clarabella	8	73	Contra Fagotto	16
31	Stopped Diapason	8	74	Trompette	8
32	Dulciana	8	75	Contra Posaune	16
33	Octave	4	76	Tromba	8
34	Geigen Principal	4	77	Clarion	4
35	Harmonic Flute	4	78	Tremulant	
36	Dulcet	4			
37	Twelfth	2⅔			

[355] http://www.npor.org.uk/NPORView.html?RI=N03443 accessed 4.8.10

38	Fifteenth	2
39	Mixture	III
40	Mixture	IV
41	Contra Posaune	16
42	Tromba	8
43	Clarion	4

Console Stop type **Drawstop** Pedalboard **R&C**

Couplers
Swell to Pedal
Swell to Great
Swell to Choir
Swell octave
Swell Sub Octave
Swell unison off
Choir to Great
Choir to Pedal
Choir octave
Choir Sub Octave
Choir unison off
Great to Pedal
Solo Octave
Solo Sub Octave
Solo Unison Off
Solo to Pedal
Solo to Great
Solo to Choir
Solo to Swell

Accessories
8 thumb pistons to Great
7 thumb pistons each to Swell and Solo
5 thumb pistons to Choir
Thumb pistons for Sw-Gt, So-Gt, Gt-Pd
Crescendo pedal
8 composition pedals
Toe pedal for So-Gt
Great to Pedal pistons
General pistons
1 pianissimo piston to each department

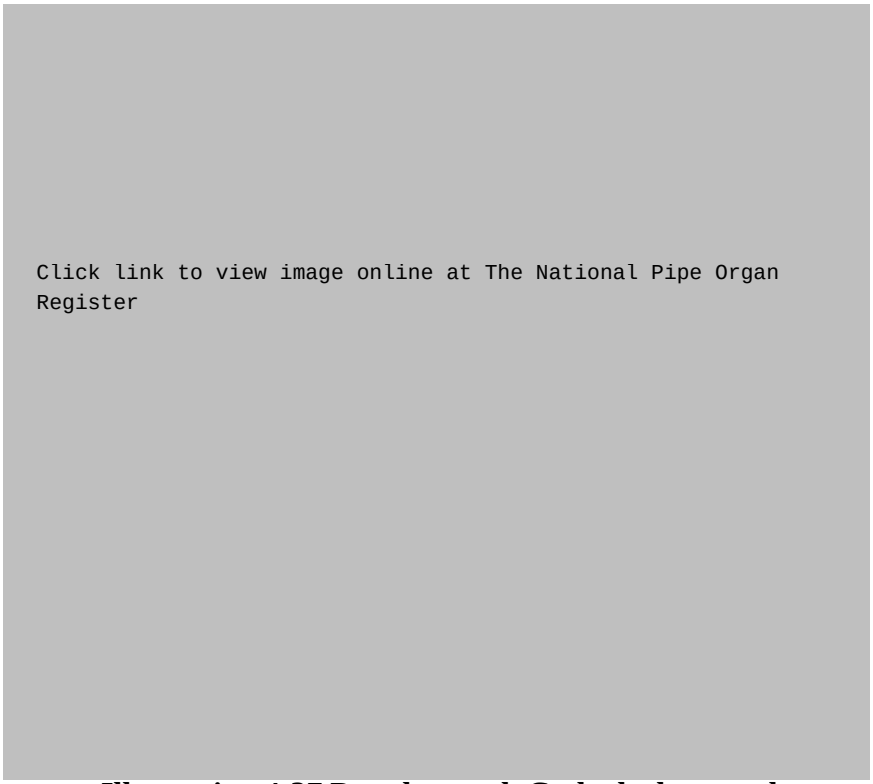

Illustration 4:27 Peterborough Cathedral - console

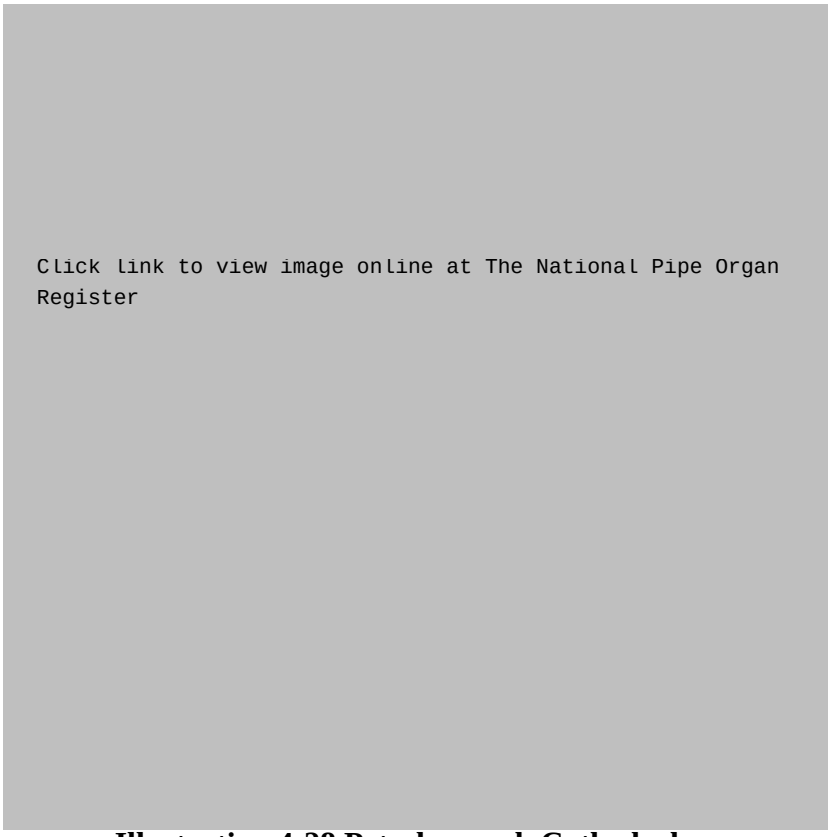

Illustration 4:28 Peterborough Cathedral – case

Comment

This large instrument is typical of many cathedral organs in the period 1945-1970. A very impressive specification on paper, though the number of stops is somewhat inflated due to the use of borrowing from the manuals to the Pedal and also to some extension on the manuals themselves. Registration aids are quite generous, though general pistons are not provided.

3. St. Luke, Sydney Street, Chelsea, London[356]

Date/Builders: 1932 John Compton Organ Co Ltd, London

	Pedal			**Great**	
1	Double Open Wood	32	44	Double Diapason	16
2	Sub Bass	32	45	Violone	16
3	Contra Bass	16	46	Bourdon	16
4	Open Wood	16	47	First Diapason	8
5	Open Metal	16	48	Second Diapason	8
6	Violone	16	49	Violoncello	8
7	Salicional	16	50	Salicional	8
8	Sub Bass	16	51	Stopped Diapason	8
9	Bordon	16	52	Harmonic Flute	8
10	Octave	8	53	Stopped Quint	5⅓
11	Violoncello	8	54	Octave	4
12	Flute	8	55	Salicet	4
13	Gedeckt	8	56	Flute	4
14	Fifteenth	4	57	Twelfth	2⅔
15	Octave Flute	4	58	Superoctave	2
16	Fourniture	V	59	Fifteenth	2
17	Acoustic Contra Posaune	32	60	Plein Jeu	IV
18	Trombone	16	61	Petit Cymbale	IV
19	Posaune	16	62	Contra Posaune	16
20	Bass Trumpet	16	63	Posaune	8
21	Bass Hautboy	16	64	Tromba	8
22	Bass Clarinet	16	65	Diaphonic Horn	8
23	Orchestral Bassoon	16	66	Clarion	4
24	Tromba	8			
25	Hautboy	8			

[356] http://www.npor.org.uk/NPORView.html?RI=A00750 accessed 5.7.10

Choir

26	Salicional	16
27	Diapason	8
28	Stopped Diapason	8
29	Violoncello	8
30	Salicional	8
31	Vox Angelica	8
32	Prestant	4
33	Salicional	4
34	Vox Angelica	4
35	Stopped Flute	4
36	Twelfth	2⅔
37	Nazard	2⅔
38	Fifteenth	2
39	Flauto Piccolo	2
40	Acuta	III
41	Double Clarinet	16
42	Clarinet	8
43	Tremulant	

Swell

67	Contra Viola	16
68	Rohr Bordon	16
69	Geigen	8
70	Viola da Gamba	8
71	Viola Celeste	8
72	Rohr Gedeckt	8
73	Octave Geigen	4
74	Viola	4
75	Viola Celeste	4
76	Rohr Flote	4
77	Violetta	2
78	Kleine Flote	2
79	Cymbale	III
80	Contra Hautboy	16
81	Orchestral Bassoon	16
82	Trumpet	8
83	Hautboy	8
84	Orchestral Hautboy	8
85	Clarion	4
86	Hautboy Clarion	4
87	Tremulant	

Bombarde (on Choir)

88	First Diapason	8
89	Octave Diapason	4
90	Fourniture	VI
91	Contra Posaune	16
92	Double Trumpet	16
93	Diaphonic Horn	16
94	Tromba	8
95	Posaune	8
96	Trumpet	8
97	Diaphonic Horn	8
98	Tromba	4
99	Clarion	4

Console Luminous console

Couplers
Swell to Pedal
Swell to Great
Swell to Choir
Choir to Pedal
Great to Pedal
Great to Choir

Accessories
8 thumb pistons to Great
8 thumb pistons each to Swell
10 thumb pistons to Choir/Bombarde

4 general pistons
Crescendo pedal
Choir Sustainer
Swell Sustainer
Pistons for pedal couplers

The organ is mostly enclosed, and is based on the extension of 28 ranks of pipes. The Open Wood and Open Metal ranks are unenclosed.

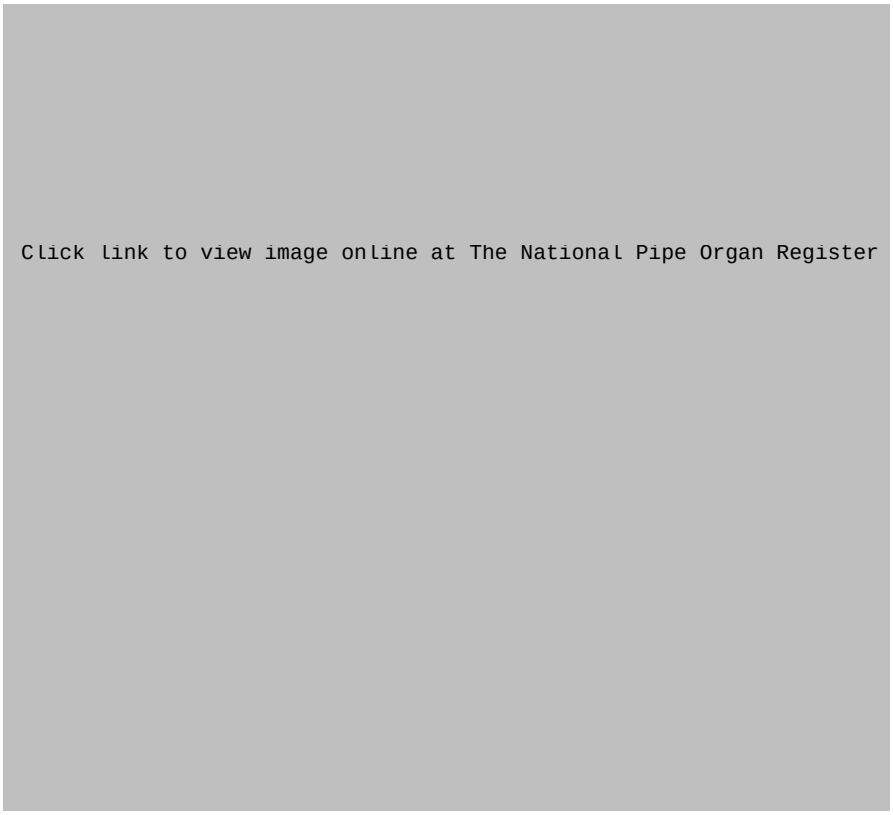

Illustration 4:29 St. Luke, Sydney Street, Chelsea, London - console

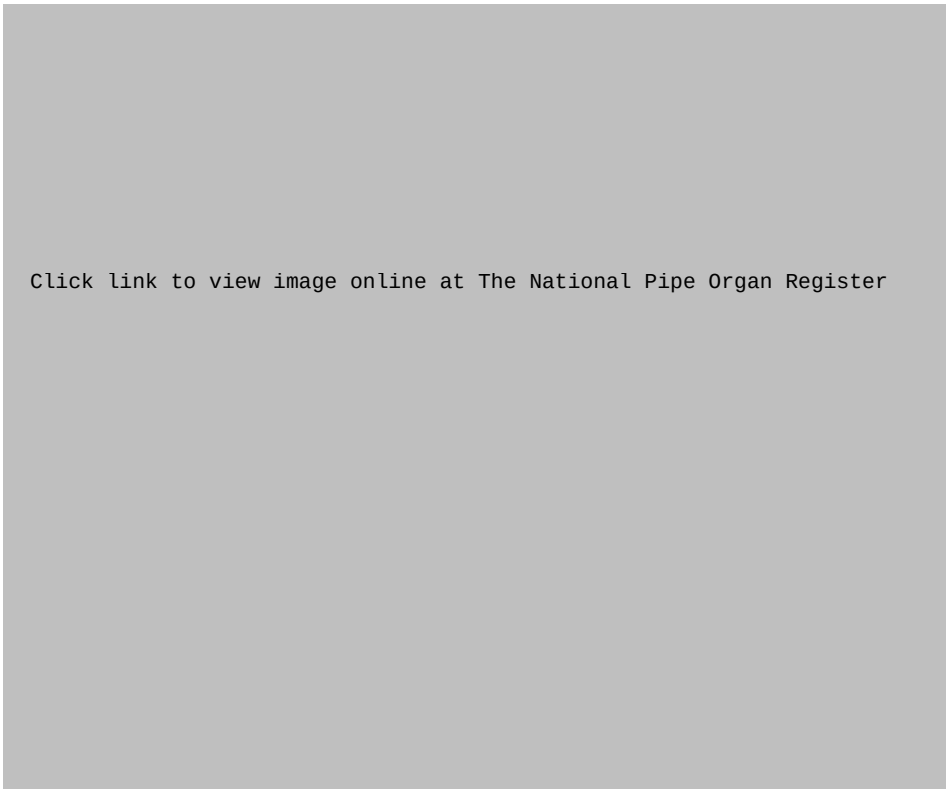

Illustration 4:30 St. Luke, Sydney Street, Chelsea, London – case

Comment

This organ was one of John Compton's most notable achievements using the extension system. No attempt was made to hide the fact that extension was used (see for example the stop names on the Swell: Contra Viola 16ft., Viola da Gamba 8ft., Viola 4ft., Violetta 2ft.) but due to the sheer scale of the design, with twenty-eight ranks in the organ, it is possible to choose registrations that are totally 'straight' and thus avoid any of the musical problems associated with the extension system.

4. Colston Hall, Bristol[357]

Date/Builders: 1956 Harrison & Harrison (new organ)

	Pedal			**Great**	
1	Double Open Wood	32	48	Double Diapason	16
2	Open Metal	16	49	Open Diapason 1	8
3	Open Wood I	16	50	Open Diapason 2	8
4	Open Wood II	16	51	Open Diapason 3	8
5	Violone	16	52	Geigen	8
6	Bourdon	16	53	Hohl Flute	8
7	Quintaton	16	54	Quint	5⅓
8	Viola	16	55	Octave	4
9	Dulciana	16	56	Principal	4
10	Octave Metal	8	57	Wald Flute	4
11	Principal	8	58	Octave Quint	2⅔
12	Octave Wood	8	59	Super Octave	2
13	Flute	8	60	Mixture	III
14	Octave Quint	5⅓	61	Mixture	V
15	Super Octave	4	62	Contra Tromba	16
16	Fifteenth	4	63	Tromba	8
17	Octave Flute	4	64	Octave Tromba	4
18	Mixture	IV	61	Petit Cymbale	IV
19	Double Ophicleide	32	62	Contra Posaune	16
20	Ophicleide	16	63	Posaune	8
21	Trombone	16	64	Tromba	8
22	Fagotto	16			
23	Posaune	8		**Choir**	
24	Octave Posaune	4	25	Open Diapason	8
			26	Stopped Diapason	8
			27	Principal	4
	Solo		28	Stopped Flute	4
82	Contra Viola	16	29	Nazard	2⅔
83	Viole d'Orchestre	8	30	Super Octave	2
84	Viole Celeste	8	31	Tierce	1⅗
85	Viole Sourdine	8	32	Larigot	1⅓
86	Viole Octaviante	4	33	Twenty Second	1
87	Cornet Des Violes	III	34	Mixture	III
88	Harmonic Flute	8	35	Double Dulciana	16
89	Concert Flute	4	36	Claribel Flute	8
90	Harmonic Piccolo	2	37	Salicional	8
91	Orchestral Oboe	8	38	Vox Angelica	8

[357] http://www.npor.org.uk/NPORView.html?RI=N03898 accessed 5.8.10

92	Cor Anglais	8
93	Tremulant	
94	French Horn	8
95	Orchestral Trumpet	8
96	Tuba	8
97	Tuba Clarion	4
	Swell	
67	Contra Viola	16
68	Rohr Bordon	16
69	Geigen	8
70	Viola da Gamba	8
71	Viola Celeste	8
72	Rohr Gedeckt	8
73	Octave Geigen	4
74	Viola	4
75	Viola Celeste	4
76	Rohr Flote	4
77	Violetta	2
78	Kleine Flote	2
79	Cymbale	III
80	Contra Hautboy	16
81	Orchestral Bassoon	16
82	Trumpet	8
83	Hautboy	8
84	Orchestral Hautboy	8
85	Clarion	4
86	Hautboy Clarion	4
87	Tremulant	
39	Dulciana	8
40	Dulcet	4
41	Clarinet	8
42	Tremulant	
43	Cornopean	8
44	Contra Tromba	16
45	Tromba	8
46	Octave Tromba	4
47	Tuba	8

Console: draw stops

Couplers
Swell to Pedal
Swell to Great
Swell to Choir
Swell octave
Swell sub octave
Swell unison off
Choir to Great
Choir to Pedal
Choir octave
Choir sub octave
Choir unison off
Great to Pedal
Solo to Pedal
Solo to Great
Solo to Swell
Solo to Choir
Solo Octave
Solo sub octave
Solo unison off

Accessories

8 thumb pistons to each manual
8 general thumb pistons,
Cancel pistons to each division
General Cancel
Reversible thumb pistons for Sw-Gt, Ch-Gt, So-Gt, Gt-Pd,
Sw-Pd, Ch-Pd, So-Pd, sw-ch, Double Open Wood,
Double Ophicleide.
8 adjustable toe pistons each to Swell and Pedal
Reversible toe pistons for Sw-Gt, Ch-Gt, So-Gt, So-Ped, Ch-Pd, sw-ch;
Gt-Pd.
Balanced Swell, Choir, Solo and Crescendo pedals
Great and Pedal combinations coupled
Swell pistons to Pedal combinations
stepper thumb pistons (7+, 2-) stepper toe pistons

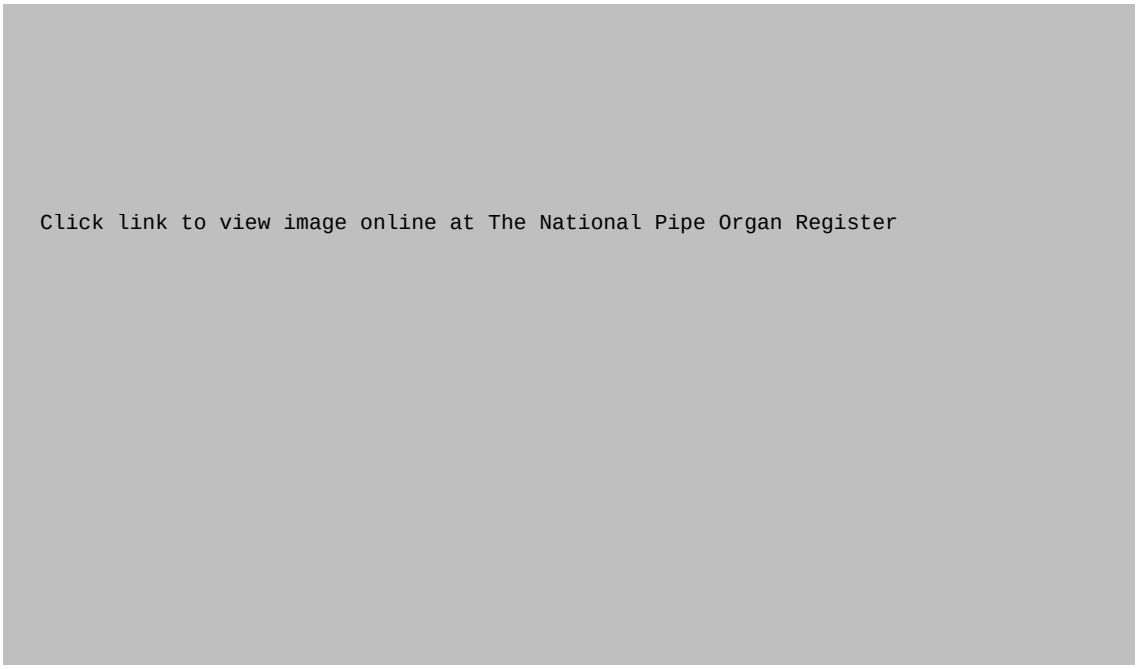

Illustration 4:31 Colston Hall, Bristol – console

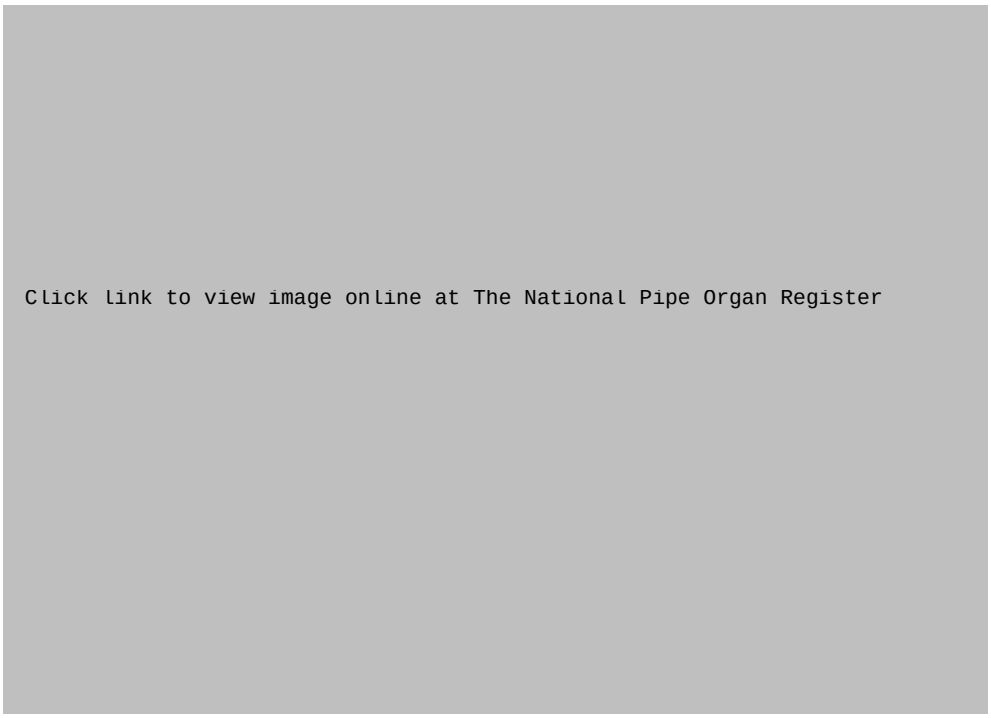

Illustration 4:32 Colston Hall, Bristol - case

Comment

This substantial instrument provides a striking contrast to the organ in Oxford Town Hall, installed just under sixty years later. Though built by the same firm who were responsible for the ground-breaking instrument in the Royal Festival Hall, and only two years later, this organ has a traditional specification that shows little or no awareness of the classical revival. The organ received an upgraded registration system in 2001 but otherwise remains tonally unaltered.

5. New College Chapel, Oxford[358]

Date/Builders: 1969 Grant, Degens & Bradbeer Ltd

	Pedal			**Positiv**	
1	Prinzipal	16	13	Holzgedeckt	8
2	Sub Bass	16	14	Quintadena	8
3	Oktave	8	15	Praestant	4
4	Rohrflote	8	16	Rohr Flote	4
5	Oktave	4	17	Prinzipal	2
6	Nachthorn	2	18	Quintaton	2
7	Mixture	IV	19	Oktave	1
8	Fagot	32	20	None	8/9
9	Fagot	16	21	Scharfzimbel 1/2	III
10	Kupfer Trompete	8	22	Holzregal	16
11	Rohrschalmei	4	23	Schalmei Krumhorn	8
12	Tremulant		24	Tremulant	

	Great			**Swell**	
25	Quintade	16	38	Flute a cheminee	8
26	Prinzipal	8	39	Salicional	8
27	Spitzflote	8	40	Celeste	8
28	Oktave	4	41	Principal	4
29	Spitzgedeckt	4	42	Flute Conique	4
30	Terz	3⅕	43	Nazard	2⅔
31	Quint	2⅔	44	Quarte	2
32	Oktave	2	45	Tierce	1⅗
33	Mixture 1 1/3	IV-VI	46	Larigot	1⅓
34	Messing Regal	16	47	Teint 1 1/7, 16/19	II
35	Trompete	8	48	Fourniture 1	V
36	Cornet	V	49	Trompete	16
37	Tremulant		50	Hautbois	8
			51	Trompete Real	8
			52	Tremulant	
			53	Cymbelstern	

Console Pedalboard **concave radiating**

Couplers
Swell to Great
Great to Pedal
Positiv to Great
Positiv to Pedal
Swell to Pedal

Accessories3 general pistons, duplicated by toe pistons, adjustable at switchboard;
4 pistons Great, 4 Sw, 4 Pos, 4 toe pistons Ped. adjustable by setter button
1 piston general cancel. 1 toe piston to Full Organ (blind) reversible toe pistons sw-gt and gt-pd

[358] http://www.npor.org.uk/NPORView.html?RI=D00380 accessed 2.6.10

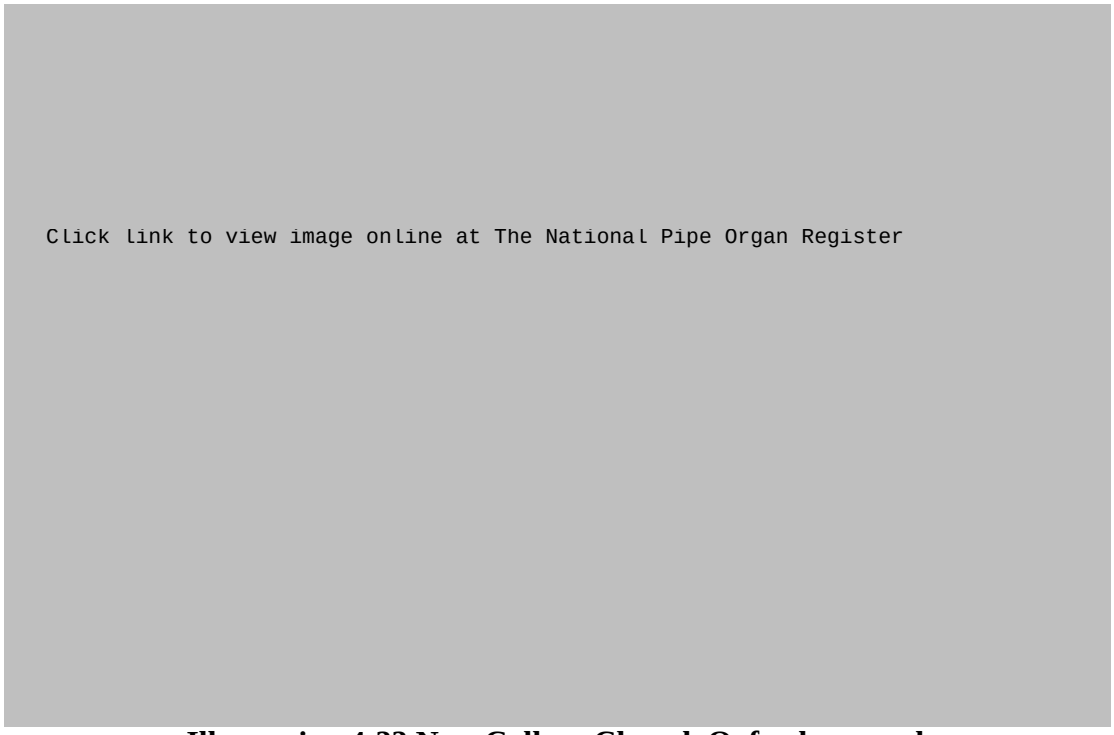

Illustration 4:33 New College Chapel, Oxford – console

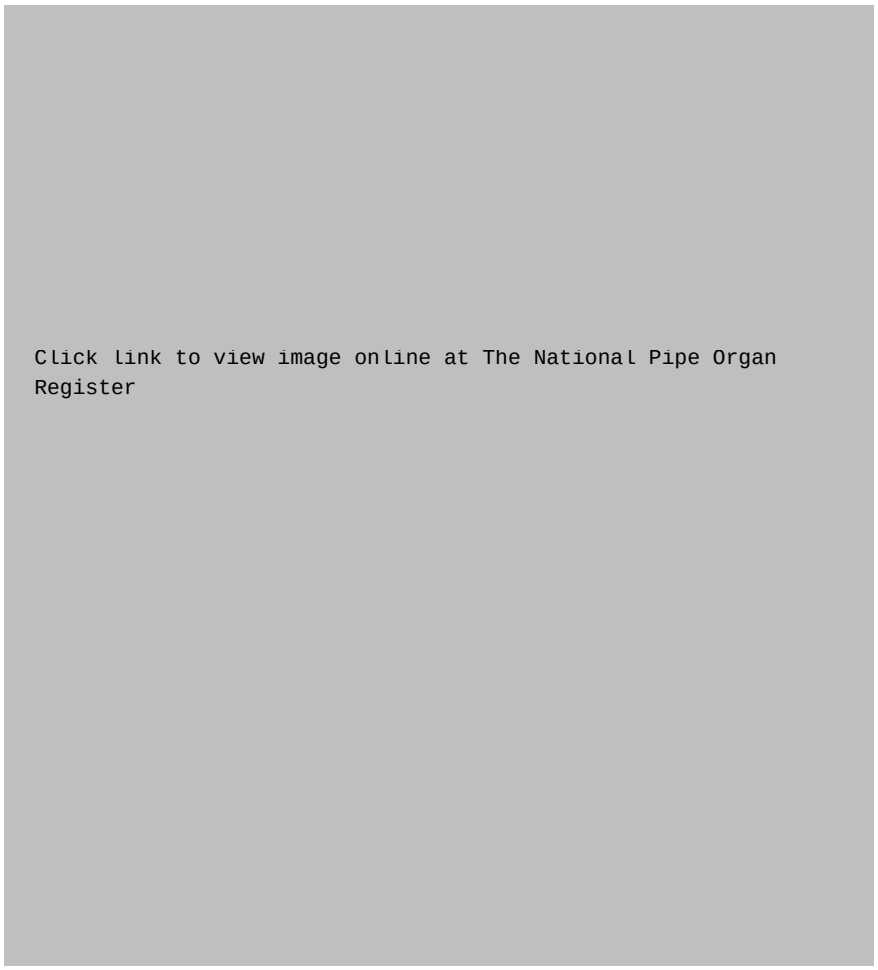

Illustration 4:34 New College Chapel, Oxford – case

Comment

This instrument was in many ways as ground-breaking, and controversial, as the Royal Festival Hall organ from 1954. The specification appears at first sight to make no concessions to the traditional school of British organ design and yet the Swell is enclosed, has strings and there are appropriate stops to register a Full Swell; further, there is a loud solo reed (en-chamade) and there are modest registration aids. Contrasting this are the generous number of high-pitched mutation stops (a considerable challenge for an organ tuner) and clear choruses on each division, all voiced on low pressures.

6. Gloucester Cathedral, Gloucester[359]

Date/Builders: 1971 Hill, Norman & Beard

	Pedal			**Choir**	
1	Principal	16	12	Stopped Diapason	8
2	Flute	16	13	Principal	4
3	Sub Bass	16	14	Chimney Flute	4
4	Octave	8	15	Fifteenth	2
5	Stopped Flute	8	16	Nazard	1⅓
6	Choral Bass	4	17	Sesquialtera	II
7	Open Flute	2	18	Mixture	III
8	Mixture	IV	19	Cremona	8
9	Bombarde	16	20	Tremulant	
10	Trumpet	8			
11	Shawm	4			

	Great			**Swell**	
21	Gedeckt-pommer	16	36	Chimney Flute	8
22	Open Diapason	8	37	Salicional	8
23	Open Diapason	8	38	Celeste	8
24	Spitz Flute	8	39	Principal	4
25	Bourdon	8	40	Open Flute	4
26	Octave	4	41	Nazard	2⅔

[359] http://www.npor.org.uk/NPORView.html?RI=N07432 accessed 2.5.11

27	Prestant	4	42	Gemshorn	2
28	Stopped Flute	4	43	Tierce	1⅗
29	Flageolet	2	44	Mixture	IV
30	Quartane	II	45	Cimbel	III
31	Mixture	IV-VI	46	Fagotto	16
32	Cornet	IV	47	Trumpet	8
33	Posaune	16	48	Hautboy	8
34	Trumpet	8	49	Vox Humana	8
35	Clarion	4	50	Tremulant	

West Positive

51	Gedeckt-pommer	8
52	Spitz Flute	4
53	Nazard	2⅔
54	Doublette	2
55	Tierce	1⅗
56	Larigot	1⅓
57	Cimbel	III
58	Tremulant	

Couplers
Swell to Pedal
Swell to Great
Swell to Choir
Choir to Great
Choir to Pedal
Great to Pedal
Manual IV to Pedal
West Positive to Great
West Great flues Sub Octave
West Positive to Choir
West Great on Manual IV
Great Reeds on Manual IV

Accessories

6 thumb pistons each to Great, Swell, Choir
4 thumb pistons to West Positive
4 general thumb pistons to all stops
reversible thumb pistons for Sw-Pd, Ch-Gt, Gt-Pd, Sw-Gt,

Ch-Pd, ManIV-Pd &
West Positive to Gt;
General Cancel
6 toe pistons each to Swell and Pedal
4 general toe pistons to all stops
Toe pedals for Sw-Gt, Gt-Pd
Balanced pedals to East Swell shutters and West Swell shutters
Great to Pedal pistons

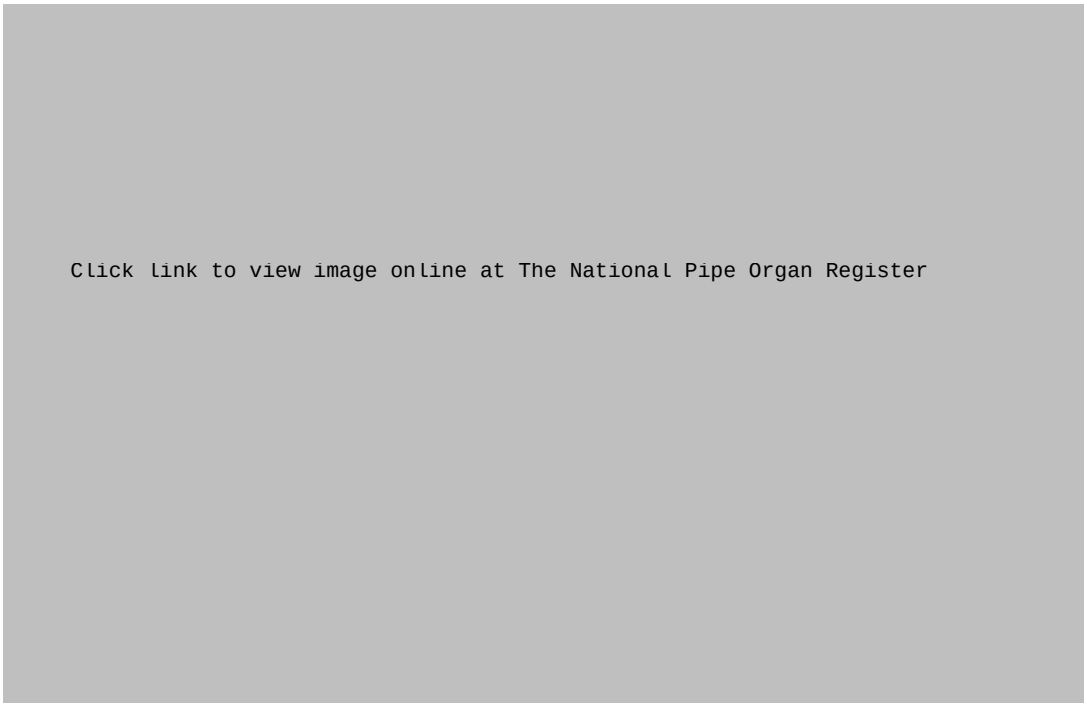

Illustration 4:35 Gloucester Cathedral – console

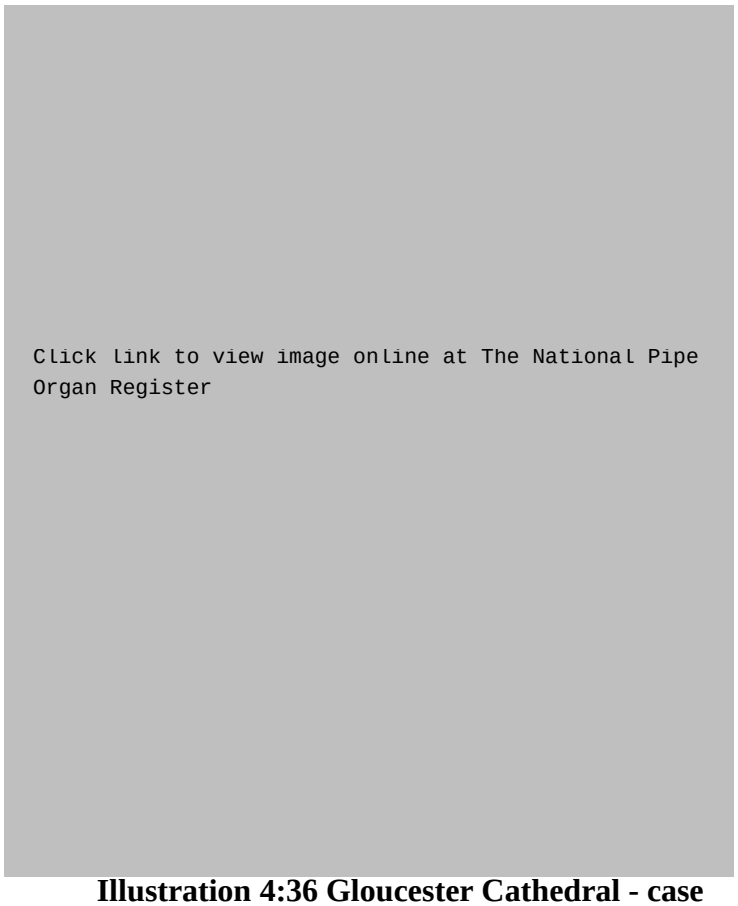

Illustration 4:36 Gloucester Cathedral - case

Comment

This organ was significantly changed in its substantial (and, at the time, controversial) rebuild of 1971 and the adviser for this was Ralph Downes, designer of the Royal Festival Hall organ of 1954. The focus was very much on achieving clarity of tone and cohesive choruses on each division, but in doing so certain key stops were discarded, including the 32ft. Open Wood and the Solo Tuba, which were deemed at the time to be musically irrelevant. In more recent times (between 1999 and 2010) five new stops have been added, including a 32ft. reed and a loud high pressure Solo Trompette Harmonique, filling what was perceived by a number of commentators to be a musical gap in the organ's tonal design.

4.7 Summary

This chapter opened with views and opinions about tonal colours and suggested that there was a growing interest from 1945 onwards in the refined sound of individual ranks, as opposed to accepting bland uniform combinations of stops, where clarity was often lost. The core of this chapter focused on eighteen different organs, all of which were in use during the period 1945-1970, and showed the wide range of designs that the player might encounter, drawing upon the detail that had been presented in chapters 2 and 3.

5 Performance issues

5.1 Introduction

This chapter focuses on pieces by three British composers which form part of the associated organ recital. General background information on the composers is given, then the performing challenges of the selected pieces are considered, and this is followed by suggestions concerning how to register the pieces on two contrasting organs from the period 1945-1970.

The pieces selected for this chapter were chosen as musical equivalents of the three broad types of organ design that were considered in chapter 4 of this thesis, i.e. traditional, transitional and classical. The organ music of Herbert Howells spans a remarkable period of time, from 1911 to 1977, but unlike composers such as Britten and Stravinsky, Howells's compositional style did not significantly develop or change over his lifetime, a style that was basically traditional. Percy Whitlock's organ compositions were produced over a much shorter time-frame, from 1929 up to his death in 1945, and, whilst his overall approach owes much to the traditional English style prevalent in the middle of the twentieth century, there can be seen the emerging spirit of the neo-classic style, especially in his *Six Hymn-Preludes*. In comparison with that of Howells and Whitlock, Kenneth Leighton's compositional style in the 1960s was clearly more contemporary, with 'neo-classical' best describing his manner of combining a dissonant harmonic language with a natural command of contrapuntal techniques and traditional forms.

The two organs used for this study were chosen to highlight the notable change in design and construction from 1945 to 1970. The first organ is a traditional instrument commonly found in post-war Britain whilst the second organ is a type of severely neo-

classical instrument that was being built in the 1970s. Each of these two organs has its unique character and musical strengths, along with certain limitations that inevitably challenge the player.

The pieces discussed are likewise contrasted - Whitlock's *Hymn-Preludes* have an overtly liturgical character, Leighton's *Prelude, Scherzo and Passacaglia* is a concert piece, whilst Howells's *Paean* sits between the two genres, suitable not only for a solo recital but also to provide a dramatic conclusion for a major church service. All three pieces have clear musical identity and purpose, refuting Cecil Clutton, the writer and self-appointed expert on organ matters, who provocative asserted in 1953 that 'the English organ as now existing has attracted no composer of consequence.'[360] Clutton was possibly being no more than deliberately controversial in order to generate discussion amongst his peers (his track record would indicate thus), though in the period from 1945 to 1970, as with any type of composition and genre, both inspired and dull pieces of organ music can be found (see Appendix 16 for a list of British organ compositions 1945-1970).

Contemporary literature pertaining to the performance of British organ music in the period 1945-1970 is quite sparse, but there are pertinent observations from professional organists on the challenges of performing specific works that provide useful insight. In particular, there is a growing awareness of the difficulties of playing new compositions for the organ which whilst clearly influenced by Classical organs had not fully broken away from key elements of traditional romantic instruments.

[360] Clutton, C. (1953) The organ at Beverley Minster. *The Organ* July Vol. XXXIII no.129 p16

As early as 1957 John Morehen noted that players required registration and voicing of a neo-classical instrument in order to do justice to Humphrey Searle's Toccata alla Passacaglia op.31:[361]

> Since the composition uses serial techniques, it naturally invites formal analysis: a temptation which, in the light of the work's structural lucidity (and the consequent effects upon the registration), is not worth resisting……..The resulting transparency tenders the work ideally suitable for performance on a neo-classical organ. Large resources are by no means a prerequisite for effective performance; a medium-sized two-manual organ with an average sprinkling of mixtures and reeds would be perfectly adequate, given an intelligent approach to matters of tempo, phrasing and articulation. The 'diminuendo' and 'crescendo' markings in the toccata section (bars 1-17) postulate the use of the Swell organ, possibly in conjunction with the Great. Since such markings are found also in the pedal part, the Swell will need to be coupled through to the pedals, although the crescendo/diminuendo factor in the pedal part will probably be so small in relation to the overall pedal tone as to pass virtually unnoticed.[362]

Practical issues of playing the organ were not always to the forefront of the composer's mind, with Morehen drily observing that

> three-legged organists might well put their added facility to good use in bar 49 by opening the Swell box as marked; the remainder of us have no option but to ignore this direction.[363]

The problems when attempting to follow exactly the performance detail in a new piece can be particularly challenging. Robin Orr's *Toccata alla Marcia*[364] is a case in point, with Sidney Campbell writing in 1958:

> I have been trying to register the opening and closing sections of an otherwise excellent new Toccata alla marcia by Robin Orr. Even with sixty-seven pistons here (!) I cannot make an

[361] Searle, H. (1957) *Toccata alla Passacaglia Op.31* London: Schott
[362] Morehen, J. (1972) The Organist's Repertory. 9: Searle's Op. 31 *The Musical Times*, Vol. 113, No. 1548. February p193
[363] Morehen, J. (1972) The Organist's Repertory. 9: Searle's Op. 31 The Musical Times, Vol. 113, No. 1548. February p195
[364] Orr, R (1957) *Toccata alla Marcia* London: Hinrichsen Edition

> independent pedal follow the general dynamic indications, but the writing rules out the use of couplers and the phrasing renders impossible the alteration of manual and pedal stops simultaneously. The future seems clear. Tonal design is being studied by a few people with success. Published stop lists suggest that builders are attempting to adapt themselves, but most of them need to pursue a lot of intricate research. Idiomatic writing for the organ is being developed elsewhere; genuine organ effects are being fully exploited, the several departments, including the pedal organ, displaying their true and effective identity without muddle. British composers may soon cease vaguely to write down ineffective impossibilities, hoping for the best. The player of solo and concerted works will then be freed from the task of arranging and making up composers' minds for them. Independence of all departments, the ignoring of couplers, and a more economical lay-out, are the keynotes.[365]

Half a century later, with the modern playing aids of the twenty-first century organ, particularly an instrument equipped with virtually limitless adjustable general pistons and sequencers, would see Campbell achieve the registrations he was seeking (see Chapter 2) .

Benjamin Britten's *Prelude and Fugue on a theme of Vittoria*[366] (Britten's only notable work for solo organ[367]) creates similar challenges. Some of the *crescendi* and *diminuendi* are virtually impossible to execute: both feet are occupied with playing the notes and yet Britten seems to expect another foot to be available to operate the swell pedal(s). Because of the highly expressive writing Hardwick suggests that 'the composer is clearly thinking of the work being played on a large Romantic orchestral instrument.'[368]

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[365] Campbell, S.S. (1958) Modern Organs *The Musical Times*, Vol. 99, No. 1383 May pp 263-264
[366] Britten, B. (1946) *Prelude and Fugue on a theme of Vittoria* London: Boosey & Hawkes
[367] Britten was not renowned for his interest in the organ although he did utilise the instrument in a number of choral works, including *Rejoice in the Lamb* (1943) and the *Missa Brevis* (1959). In these pieces the organ has a significant role even if the writing for the organ is not very idiomatic.
[368] Hardwick, Peter (2003) op.cit.p156

Certainly the organ in St Matthew's Northampton[369] (the church that commissioned the piece and where the piece was first performed) is such an instrument but Timothy Bond, a noted performer of twentieth-century organ music, raises questions about the suitability of such a Romantic instrument for this piece.

> One of its (i.e. Britten's Prelude and Fugue) main difficulties is the problem of getting the right registration, for the composer's approach to writing for organ is apparently contradictory in all of his works …..which employ the instrument. On the one hand, he expects the possibility of gradual and extensive crescendo-diminuendo without implied alteration of timbre. On the other (and often in the same passages), he writes in a contrapuntal or semi-contrapuntal manner suggestive of so-called 'neo-classicism', which needs brightness and clarity. Organs in the 'English cathedral tradition' may be good at the former but they tend to be dismal at the latter; many of the earlier 'neo-baroque' instruments of the Organ Revival are precisely the other way round, so it becomes very difficult for the organist to find an instrument which can convey, for example, both the liveliness and the continuity of the 'Vittoria' fugue (which is the main part of the work). ……But it need not. Newer instruments on the European mainland (and a few now in the UK too) are often both clearly voiced and possessed of warm colours and dynamic flexibility.[370]

5.2 Kenneth Leighton and the organ

Kenneth Leighton was a chorister at Wakefield Cathedral and studied at Oxford University. In 1955 he was appointed Lecturer in Music at the University of Edinburgh from whence he proceeded to Senior Lecturer, Reader, and, finally in 1970, Reid Professor of Music. He was one of the most distinguished of the British post-war composers, with over 100 published compositions, many of which were written to commission. As a pianist Kenneth Leighton was a frequent recitalist and broadcaster

[369] For specification see: http://www.npor.org.uk/NPORView.html?RI=N01348
[370] Bond, T. (2004) Britten's Music for Organ: Some New Discoveries *The Musical Times*, Vol. 145, No. 1887 Summer pp51-57

and, whilst not an organist (he did not, for instance, specify registrations in his work), he did contribute a number of significant works to the organ repertoire.[371]

5.2.1 Prelude, Scherzo and Passacaglia[372] - performing considerations

The *Prelude, Scherzo and Passacaglia op.41* was commissioned by the recitalist and writer Bryan Hesford[373] and received its first performance on October 24th 1963 by Hesford on the organ of Norwich Cathedral.[374] The work displays many of Leighton's compositional characteristics – fluid natural contrapuntal skills allied with often passionate lyricism, the use of a dissonant harmonic language yet underpinned by clear tonality, and abundant rhythmic invention. It is a totally abstract piece, using a technical device much favoured by Leighton, in which the music grows from a single cell.[375] In this case the cell has two notes, a semitone apart, creating ambiguity in the tonality, shifting between major and minor 3rds.

The original manuscript of the *Prelude, Scherzo and Passacaglia* is deposited in the library of Edinburgh University[376] and this was consulted by the author in 2010. The score shows that Leighton's detail of phrasing, articulation, dynamics and tempi are very precise, reflecting his practical experience as a distinguished concert pianist. However, certain performance directions have been added in another hand, in red ink, either by the original performer or by the publisher's editor, and it is likely that these

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[371] See Appendix 7 for complete list.
[372] Leighton, K. (1964) *Prelude, Scherzo and Passacaglia op.41* London: Novello
[373] Bryan Hesford b.1930, d. 1996
[374] See Appendix 7 for specification
[375] Moger, P. (1985) Kenneth Leighton's Organ Music. *The Musical Times*, Vol. 126, No. 1711. September pp553-555
[376] Edinburgh University Special Collections. Accessed 24.3.10

came about in the light of the experience of the first performance of the piece. The following additions and changes were noted:

1. Manual indications at the top of the music.
2. All of the manual changes
3. The use of reeds on the Pedal
4. Many enharmonic changes to the original notation
5. The Scherzo has, in addition to the tempo direction (*Allegro molto, ritmico e chiaro)*, a metronome marking: ♩. = *144-1?4*, but this has been crossed out, suggesting that Leighton's initial idea was felt to have been too ambitious a speed to undertake. It is noteworthy that the two other movements of the work have detailed metronome markings.
6. At the bottom of the final page *Laus Deo* was written in the composer's hand but omitted in the published score.

The manual indications at the top of the music are:

Great I

Swell II

Choir III

Solo IV

This is a touch confusing, since in most 4-manual British organs the manuals are designated in the order they are normally to be found on the console, i.e.:

Choir I

Great II

Swell III

Solo IV

In this case the decision to reorder the divisions was possibly made due to the composer thinking primarily in terms of the importance and the tonal power of each division. The challenge in this work is for the performer to marry the highly expressive nature of a very passionate work, presupposing the need to utilise a large romantic instrument, with the clarity of line of Leighton's contrapuntal technique that suggests the voicing of a Classical organ. Similar problems were noted earlier in this chapter when considering Britten's *Prelude and Fugue on a theme of Vittoria.*

5.2.1.1 **Prelude** (*Largo sostenuto* 𝅗𝅥 = *c. 56*)

The Prelude is based on the slow development of a sinuous chromatic motif in the manuals, a motif that continuously shifts modes; this motif is accompanied by an ominous pedal figure, based on major and minor thirds, which continues under the manual writing for much of the movement:

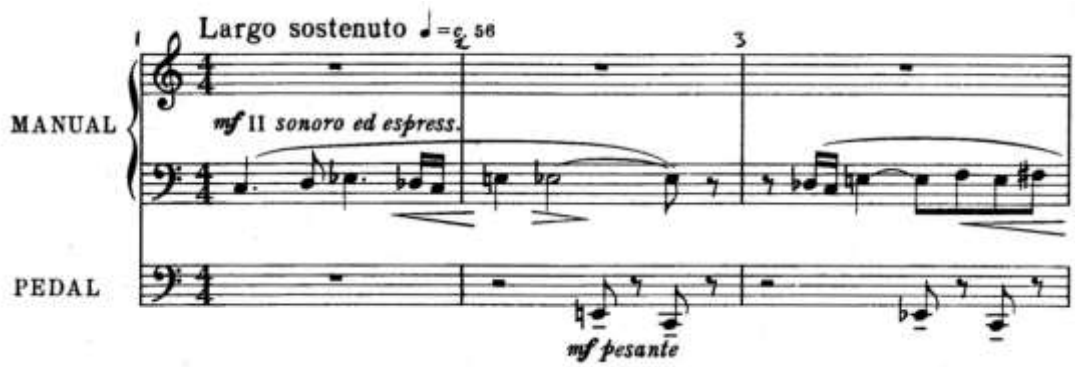

Illustration 5:1 Leighton – Prelude bars 1-3[377]

The first registration direction at the beginning of the Prelude suggests the player commences on the Swell manual (II) which is logical due to the copious hairpins and

[377] Prelude, Scherzo & Passacaglia. Music by Kenneth Leighton. © Copyright 1963 Novello & Company Limited. All Rights Reserved. International Copyright Secured. Printed by permission of Novello & Company Limited.

the highly expressive nature of the writing. The dynamic marking *mf, sonoro ed espress.* indicates the composer is after a warm sound, in some ways more akin to string writing rather than to that of the organ. No pitch indications are given and a single 8ft. stop here would probably not suffice, so the combination of several 8ft. stops could provide the necessary richness of tone, and on some instruments the inclusion of a 4ft. stop (either a Principal or a Flute) might be necessary to add additional focus and clarity.

The pedal line has the same dynamic as the manuals (*mf*), but there are important differences in the detail - the pedal line is marked *pesante*, there are tenuto marks, and instead of notating the rhythm of the two-note ostinato simply as crotchets Leighton writes them as quavers with quaver rests, suggesting that there must be air between the notes. Weighty 16ft. and 8ft. pedal stops are needed to give the line suitable gravitas and the string analogy can be continued here, with the writing suggesting cello and basses in unison. Care over the choice of stops is needed to ensure the subtleties of Leighton's directions are projected, particularly if the attack and release on the 16ft. stops (such as a large-scaled Open Wood) is not very precise. The pedal notes are played by the left foot throughout bars 1-34 since the dynamic gradations in the manual writing necessitates keeping the right foot on the swell pedal.

In bars 9-11 there is an indication that Leighton's conception of this piece is more orchestral than for the organ, insofar as there are dynamic shadings for the hands independently of each other. The right hand in bars 9-10 has small hairpins, followed by similar markings in the left hand a bar later, and it is not feasible to achieve this if both hands (as indicated at the start of the movement) are on the same manual:

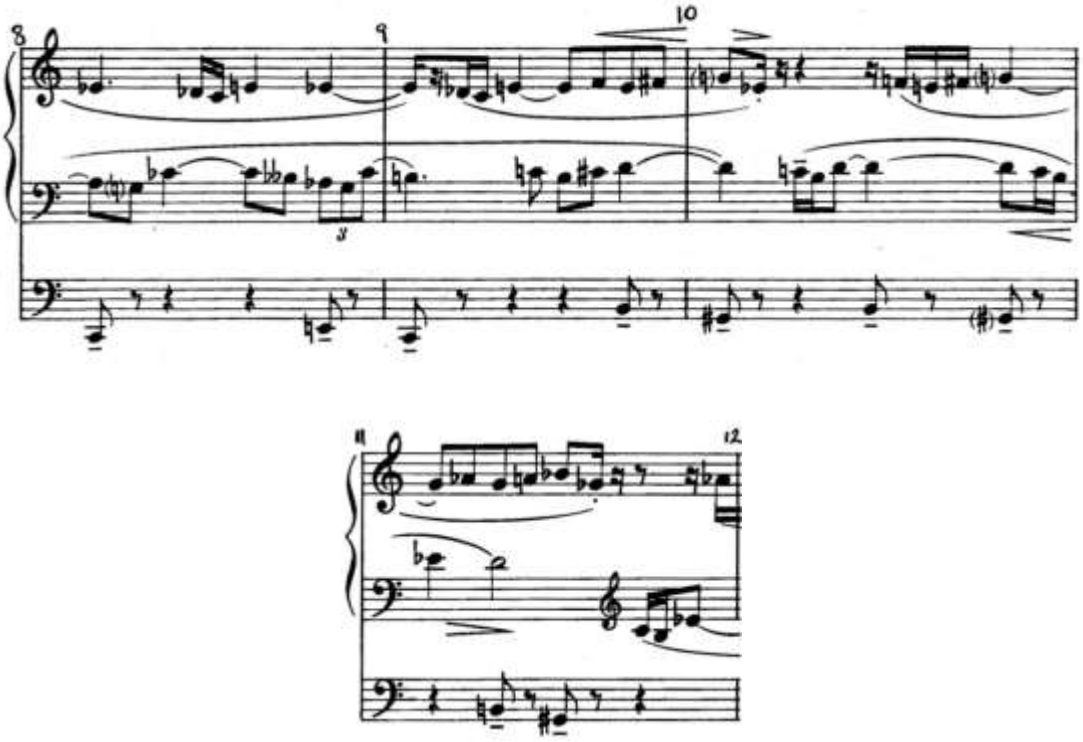

Illustration 5:2 Leighton – Prelude bars 8-11

The only way to literally observe this is to rethink the opening registration, using two separate manuals which are enclosed, one for the right hand and one for the left hand, and ensuring that the stops chosen on both manuals match each other in dynamic and timbre.

There is a change in dynamic in bar 17 on the second beat, moving up from the opening *mf* to *f*, and at the same time there is a direction for the left hand to move onto the Great (with the Swell coupled). The left hand from the second beat has the theme and this line is clearly is meant to be louder than the writing in the right hand, which remains on the Swell, but the placement of the dynamic mark *f* exactly in the middle of the two staves could infer that both divisions need to have a registration change. If it decided to add stops to the Swell in bar 17 then there is a very brief moment when it is possible to, and this is between the first beat and the second beat, where the second quaver of the first beat has a staccato mark, and this coincides with the end of a phrase.

In bar 20 the right hand is directed to join the left hand on the Great and there is a hairpin at the same point. The swell box could be opened slightly here, though with both hands now on the Great there will be an increase in the dynamic level; the player needs to reserve fully opening the swell box in this bar since two bars later, in bar 22, the next crescendo contributes to the increase in tension in bar 23.

At the start of bar 23 the pedal re-enters, with the original ominous descending two-note motif now inverted, and there is the direction *f più pesante*. By coupling the pedal to the Great the required dynamic level is achieved, though with a fully independent pedal division it would be possible to keep the pedal uncoupled here. The addition of a further 16ft. stop, if available, might contribute to the required heavy character and also the addition of a 16ft. reed might be considered, but it is probably best reserved for the next pedal entry in bar 27.

In bar 27 on the first beat there is a direction to increase the manual volume (*più f)* and whilst this logically coincides with the change in texture (ending the predominantly contrapuntal writing that has featured from the beginning of the piece) it is another example of Leighton thinking in orchestral terms rather than that of the organ. Coming between phrases, and with a tied inverted pedal in the right hand, a rapid registration move is required if it is to be musically convincing. For the best effect there could be a touch of rubato at the end of bar 26 with a quick release of the final semiquaver in both hands, allowing for the addition of some stops, possibly reeds and mixtures, at the start of bar 27, although there is a need to reserve further stops for bars 32-33 where the *crescendo* sign leads into *ff.*

The texture from bar 31 now reverts back to being contrapuntal, with initially just two voices (though doubled at the octave) and then, from bar 39, the texture comprises

of a two-part canon underneath an inverted pedal in the right hand. The increase in dynamic in bar 33 to *ff* provides a challenge since, if taken too literally and over-registered, Leighton's contrapuntal writing could be obscured:

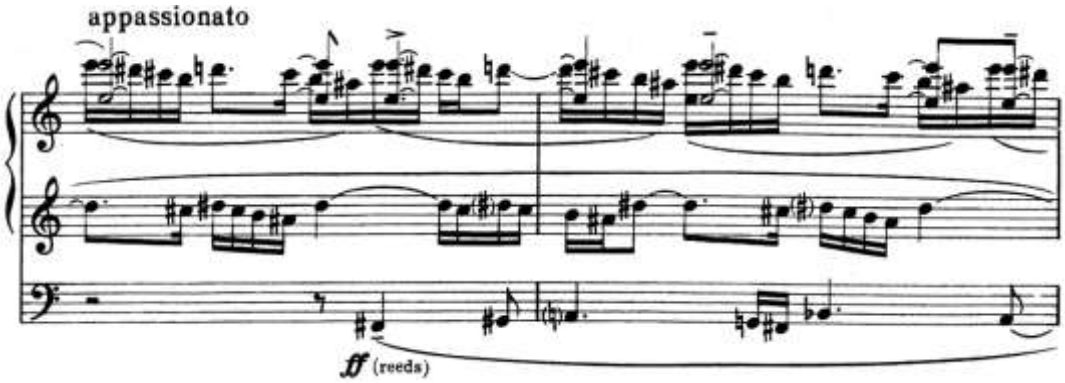

Illustration 5:3 Leighton – Prelude bars 38-39

Underneath the manual writing the Pedal reintroduces the main theme, with the registration direction *ff (reeds)*, and in order for this to be projected over the dense manual texture it might be necessary to add not just a 16ft. reed but also an 8ft. reed if not even a 4ft. reed, to give not just weight but also clarity.

In bars 40-41 there is a crescendo sign and this comes at an awkward spot since both feet would normally be employed in playing the angular line, though there is a phrase end between the wide leap of a diminished fifth, making it feasible for the phrase to be taken by the left foot and freeing up the right foot to operate the swell pedal. An alternative is to add further stops to the manuals but apart from the challenge of reaching for a thumb piston, due to the complex manual writing at this point, there is no point at which the addition of stops would make musical sense. From bar 41, when the music gradually slows down, the textures grow in density, with up to five voices spread over the two hands, and the writing is highly dissonant. Particular sensitivity in registration has to be used here, for if too many stops have been selected, especially

heavy manual reeds, there is the danger of this section becoming very blurred with little or no detail emerging.

There is a small coda, commencing at bar 44, marked *maestoso* and whilst there is no dynamic change marked there is an editorial suggestion in bar 46 to use the Solo (IV). It is not clear whether the player is meant to play these final four bars on the Solo or, alternatively, is meant to couple the Solo through to the Great. Either option should be treated with caution since the dynamic level is already *ff* and therefore the only possible stop on the Solo that would make an impact would be a loud, possibly high-pressure solo reed, such as a Tuba, and if such a stop was too big in scale it could easily obliterate the detail and reduce the intended effect.

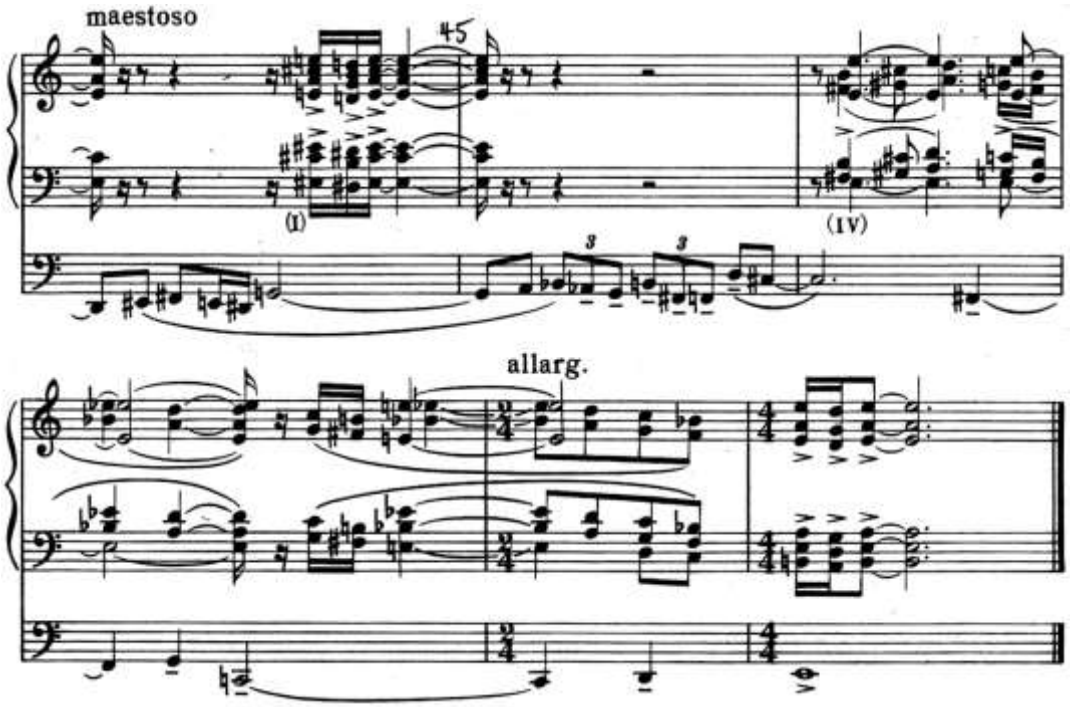

Illustration 5:4 Leighton – Prelude bars 44-49

5.2.1.2 Scherzo

The title *Scherzo* suggests a joking or jesting piece and, whilst there is dark humour in the music, it is the latter characteristic that predominates. The movement bristles with

energy, it has contrapuntal writing mixed with syncopated chordal passages, and its tonal ambiguity connects it with the Prelude and the Passacaglia. Unlike the outer movements in this Scherzo the dynamic directions are much sparser.

The opening dynamic direction is '*pp* II *sempre'* along with the instruction to play always in a very lively manner, clearly. It is the direction to play rhythmically and clearly that is of significance when it comes to registration, due to the quick-silver lines and contrapuntal textures:

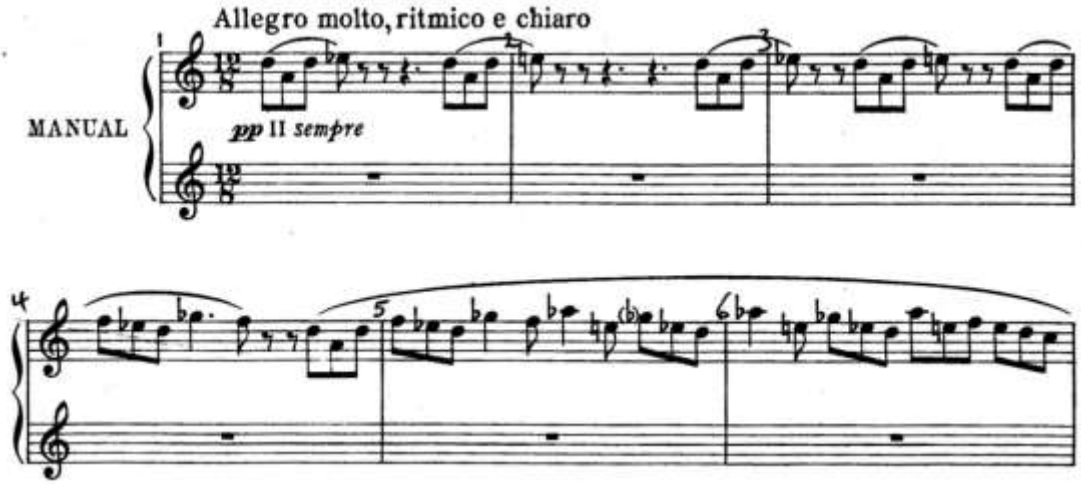

Illustration 5:5 Leighton – Scherzo bars 1-6

No tone colours or pitches are suggested in the opening but in bar 42 the direction *-4' +2'* (i.e. subtract a 4ft. stop and add a 2 ft. stop) intimates that the movement starts with 8ft. and 4ft. stops. The fastest speaking stops are normally flutes and diapasons, and the combination of flute stops at this pitch would give both the requisite clarity and the gentle tone colour at a *pianissimo* dynamic level.

In bars 22-23 the dynamic direction is not clear. There is a decrescendo sign over three beats and this is followed after a brief silence with the dynamic *p*. The movement could be started with the swell box open (although this is meant to be at *pp* level), thus allowing the decrescendo to be achieved but in order to differentiate between the *ppp*

level and the *p* level there might be a need to change the registration here, possibly with the addition of a stop. This is another example where Leighton appears to be thinking in pianistic terms rather than that of the organ.

The pedal entry in bar 26, a four-note ostinato, has no dynamic direction but clearly needs to balance the manual, not dominating; the pedal could be coupled to the manual but the use of just 16ft. and 8ft. stops would give the line sufficient clarity.

The new section in bar 42 has a change of dynamic (to *mp*) along with a suggested registration change. The suggestion is '*mf (-4' +2')* which is known as a 'gapped combination', whereby an 8ft. stop is combined with a 2ft. stop, consequently sounding both the unison and two octaves higher. This combination was often perceived in the early days of the neo-Classical revival as being an authentic registration for Baroque music but, as Owen notes,[378] such combinations were in fact generally disapproved of in the Baroque period. However, with this energetic dancing music this sprightly combination does seem very apt.

In bar 52 the right hand transfers to the Choir, with the Swell coupled through, rising in dynamic (*mf III + II)* and, as previously, no suggestion is made for the registration. It is in bar 57 that the editorial suggestion provides an individual interpretation, moving the left hand to the Solo manual *(mf IV)* in order to play a quasi-fanfare figure. Strongly contrasting with the right-hand continuous quaver pattern this fanfare figure consists of quasi-organum bare fifths in simple time, creating cross-rhythms with the main compound rhythms in the right hand. The suggestion to play this

[378] Owen, B. (1997) *The registration of Baroque organ music*. Bloomington, Ind.: Indiana University Press. p149

quasi-fanfare on the Solo manual might suggest that a solo reed would be appropriate but the use of a Tuba stop would dominate the textures and therefore a gentler reed could be used, such as a small-scale Trumpet:

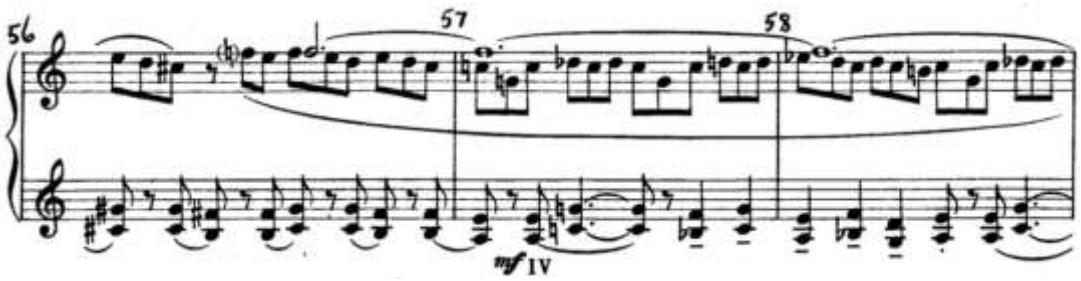

Illustration 5:6 Leighton – Scherzo bars 56-58

The quasi-fanfare figure ends in bar 62 and the left hand is directed to join the right hand on the Choir, along with the dynamic change *poco più f*. This is a very tricky spot to add stops, although it could be feasible over the bar-line between bar 61 and 62, especially if fast stop action is available.

The Pedal re-enters in bar 63 presenting the four-note ostinato and the registration suggestion is to couple the Pedal to the Great (*+I*) whilst the left hand moves to the Great (with II + III coupled) a bar later, playing the main theme and is then joined on the Great by the right hand in bar 69. The direction *più brillante, ma non troppo f* indicates that Leighton wants the registration to have brightness without necessarily being too loud, and a bright mixture would be a suitable choice.

Just prior to the music changing in bar 79 from compound to simple time there is a crescendo sign in bar 78, suggesting that the swell box should have been kept closed or partly closed either from bar 42 or from bar 69. In the final bars of this section the dynamic marking moves up to *più f* and whilst this clearly is the climax of the movement, and the loudest point of the piece, the registration needs still to be restrained.

The final section is a coda, winding down the previously created tension, and there is a registration suggestion *pp II (+4'-2')* which reflects the registration at the opening of the movement. The counter-subject in the left hand, starting in bar 96, is directed to be on the Choir and since there is no suggestion about coupling the Swell through to the Choir it could be effective to utilise a different colour here to contrast with the fast moving right-hand patterns on the Swell:

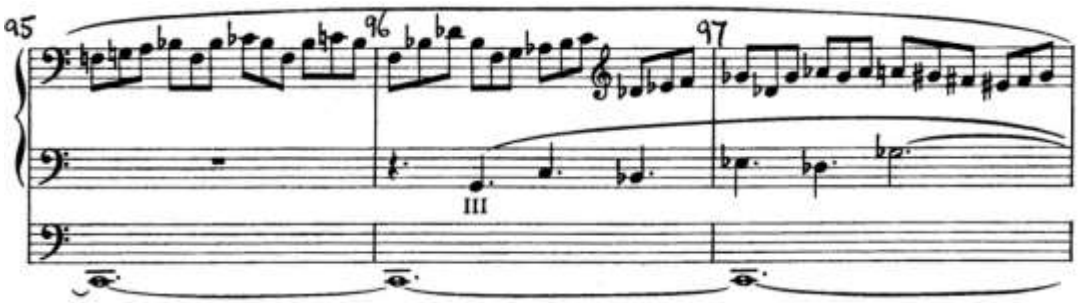

Illustration 5:7 Leighton – Scherzo bars 95-97

The throwaway statement in the final two bars is marked *ppp* and this suggests changing the registration to a single 8ft. flute, ending in a hushed fashion, preparing the listener for the next movement.

5.2.1.3 Passacaglia

The passacaglia theme is introduced on the pedals and uses all twelve notes of the chromatic scale, although in fact the complete theme has thirteen notes in total, with the third note and the thirteenth note sharing the same pitch name, albeit enharmonically and an octave part. A tone row might suggest the movement is a serial composition but, whilst the writing is highly chromatic, there is some sense of a tonal centre due to the theme having many intervals of a perfect 4th. The textures are initially contrapuntal, with the jagged lines creating often dissonant harmonies, and the music grows in energy

and freedom, building up to lively dance in compound time. The dance ends abruptly and, after a dramatic pause, leads into a coda. This has strict contrapuntal textures, over a lengthy pedal point, with the final build-up based on both the passacaglia theme and the opening prelude; the increasingly complex chords contribute to the final tension, eventually resolving to end with a blazing C major chord on full organ.

The theme is presented on the Pedals and, whilst there is nothing in Leighton's writings or notes to suggest so, there appears to be more than a passing connection between his work and that of Bach's great Passacaglia in C minor for organ:

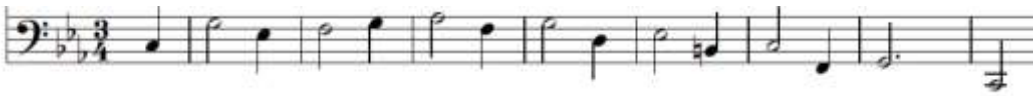

Illustration 5:8 J.S.Bach – Passacaglia in C minor BWV 582 bars 1-8

The theme in Bach's passacaglia lies very easily under the feet but in Leighton's passacaglia the player is required to be considerably dexterous and to exercise some ingenuity in the pedalling in order to achieve the legato line as suggested by the composer's phrase marks:

Illustration 5:9 Leighton – Passacaglia bars 1-11

Through a combination of foot substitution and crossing of legs it is possible to play the theme as marked in its initial appearance, but with the 1st variation the inclusion of hairpins creates a considerable challenge if it is intended to continue playing the theme as phrased. By bars 10-11 this is physically impossible, since the right foot has to be kept on the swell pedal in order to observe the crescendo and diminuendo, leaving the left foot by itself to play the notes E flat/B flat/E natural, but leaps of fourths and fifths cannot be played legato. There has to be a compromise here and it would seem logical to maintain the phrasing in the pedal, and therefore some of the expressive detail in the manual writing has to be omitted.

The dynamic markings at the opening of the passacaglia are *pp* (+II) for the pedal and *p* for the manual, but the lyrical lines are similar to the opening Prelude and there is need for both warmth and definition in the registration despite the quiet dynamic level. What is clearly not suitable for this opening is an indistinct registration, such as used in

many a cathedral evensong for background improvisation, but rather clear-toned stops, and possibly not restricted to just those at 8ft. pitch.

There is a marked change of mood in bar 41, with a direction to play *molto ritmico* (very marked) and più brillante (more brilliantly). After three pages of sustained legato writing the articulation changes, with frequent use of staccati, and this, combined with the suggestion to move onto the Choir division, suggests this section should be brightly registered, possibly in a neo-Classical manner:

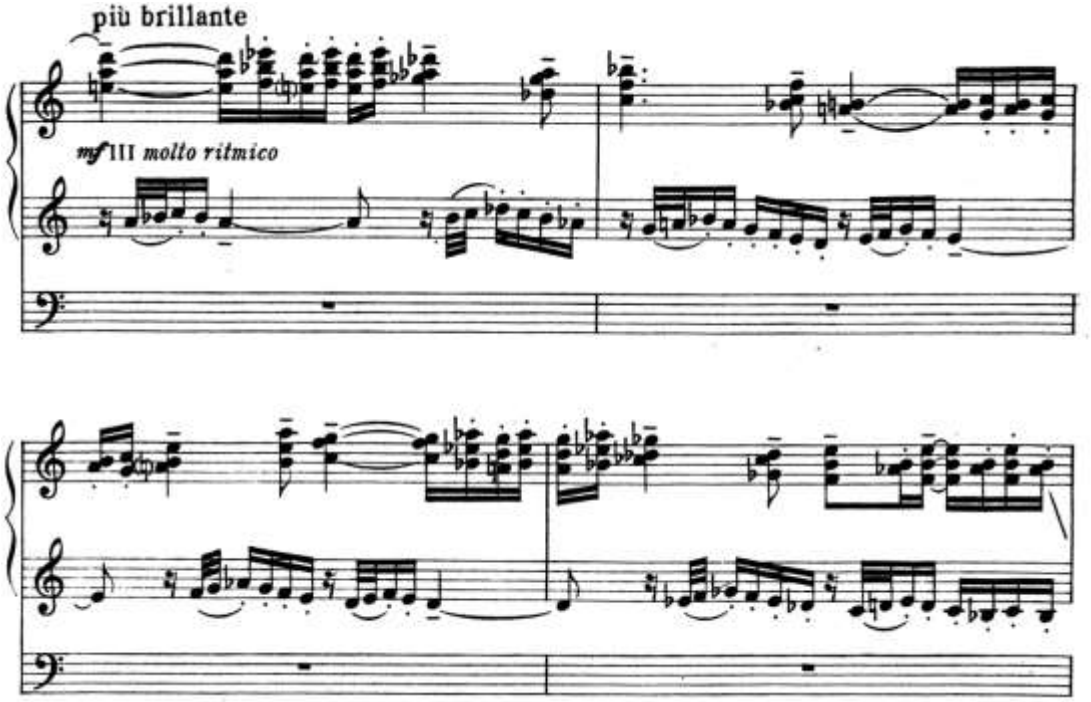

Illustration 5:10 Leighton – Passacaglia bars 41-44

The need for bright voicing and a quick responsive key action (such as would be found on a fine tracker-action instrument) is further reinforced in the next section, at bar 60, *un pochiss. più mossos (alla marcia)* where the articulation and writing is particularly crisp:

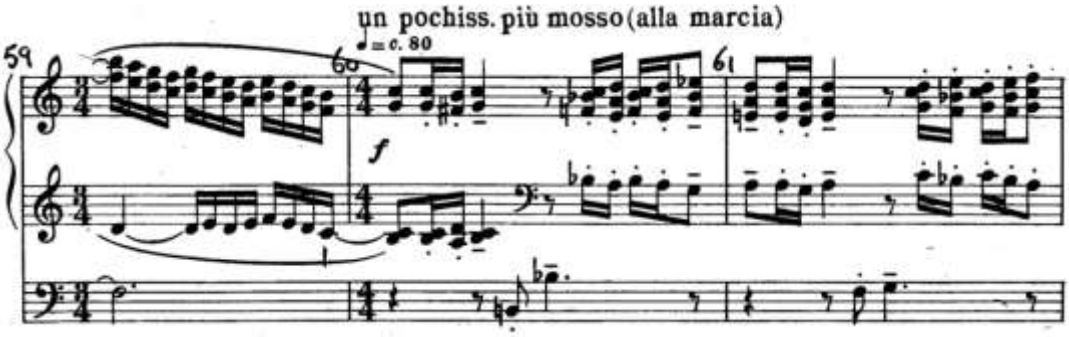

Illustration 5:11 Leighton – Passacaglia bars 59-61

Care over stop choice and balance is even more crucial in variation 11 (which starts in bar 84) where the right hand has a syncopated rhythmic figure that adds much interest but which could easily be lost if over-registered:

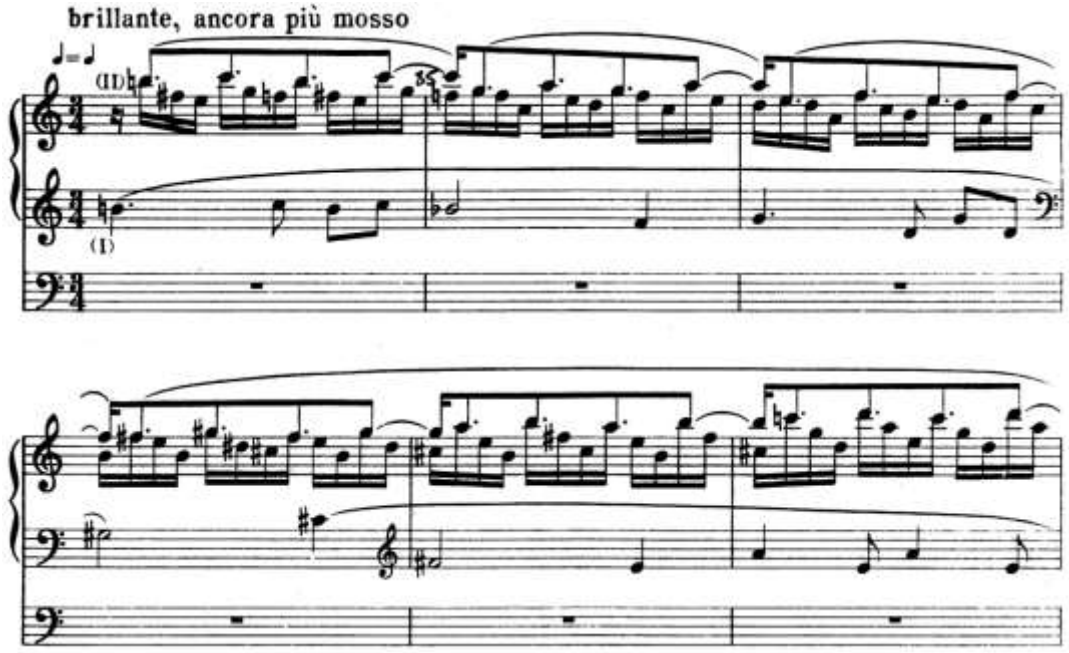

Illustration 5:12 Leighton – Passacaglia bars 84-89

Variation 12 starts in bar 92 and here the syncopated figure from variation 11 is expanded, with the passacaglia theme returning to the Pedal. Using a 16' reed, as suggested, adds important weight to the line, but the challenge comes at the end of the variation when the final note (in bar 98) becomes a pedal point and there is a possibility that the pedal registration is now too loud, obscuring the manual writing above. A

suggestion is made for the left hand to play on the Solo (IV) and here a Tuba stop at 8ft. pitch is clearly expected, though again important musical detail in the right hand might well be lost here, and a reduced registration should be considered as a more musical solution.

The final variation (number 13) starts at bar 105 and the suggestion to remove the Pedal reeds (*reeds off*), leaving just quick-speaking fluework, enables the dance-like features to be projected effectively, since most 16ft. pedal reeds do not speak rapidly enough for such nimble writing.

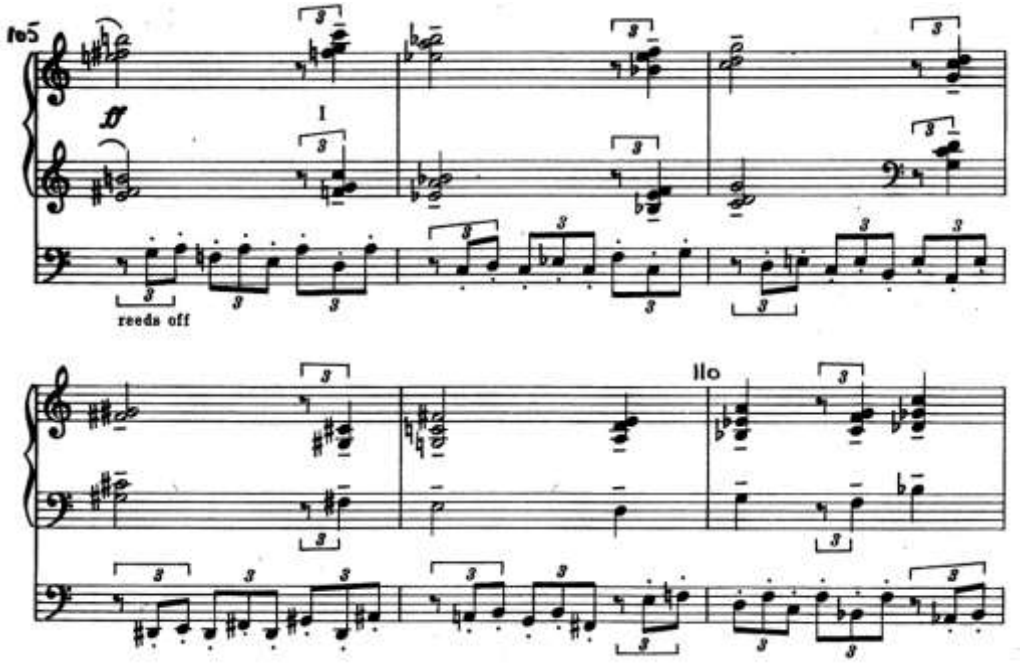

Illustration 5:13 Leighton – Passacaglia bars 105-110

The cadenza from bar 119 is marked *ff appasionato* with the writing very dramatic. The texture reverts back to being contrapuntal and the balance between the manual figuration and the long pedal note, which is sustained over the next 11 bars, has to be carefully judged if the manual writing is to be heard. Further, as the piece moves down in tessitura there is a real possibility of much, if not all of the detail becoming lost.

The coda starts at bar 130 and here the passacaglia theme is combined with material from the Prelude in dense contrapuntal writing, building to an impressive climax. Double pedalling is introduced from bar 136 but this is optional and, whilst the addition of the octave notes might give a touch more emphasis to the passacaglia theme, it would be more effective to add a few more stops to the Pedal, enabling the player to sustain the legato line by using both feet for the lower octave.

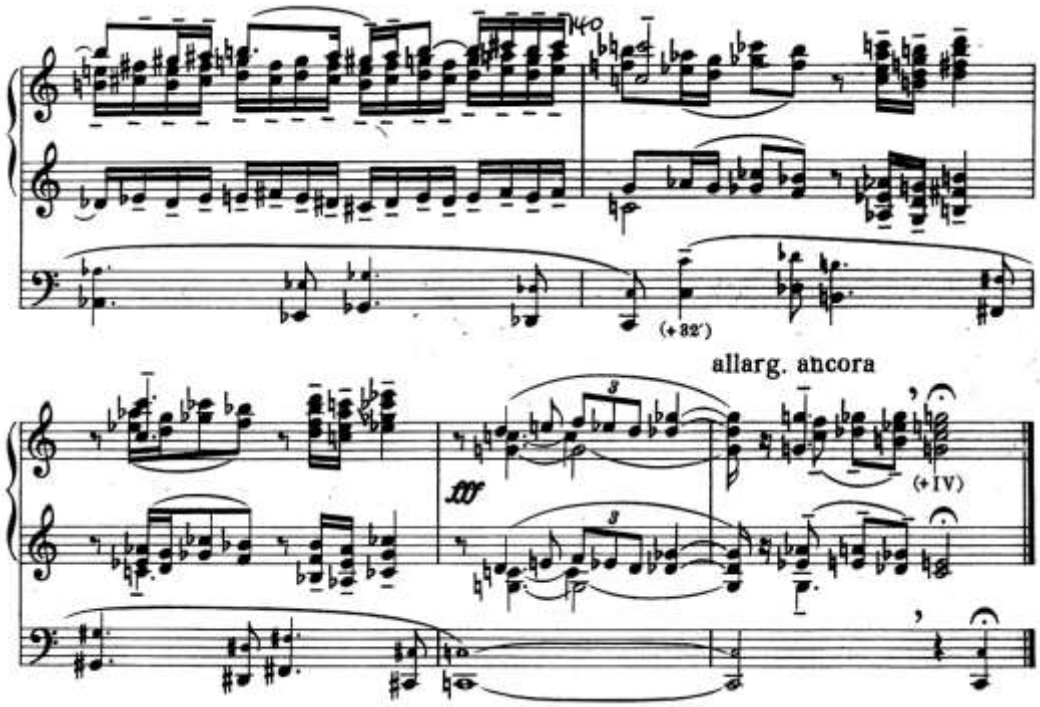

Illustration 5:14 Leighton – Passacaglia bars 139-143

5.3 Herbert Howells and the organ

Herbert Howells (1892-1983) occupied a prominent position in twentieth century British music, achieving particular renown in the spheres of organ and choral music. He composed pieces for the organ throughout his long life,[379] with his compositional style not changing radically during his lifetime, a predominantly tonal style but with much romantic colouring that moves at times to impressionism. Howells received training as

[379] See Appendix 5 for a complete list of the organ works of Howells.

an organist (he gained the FRCO diploma in his early twenties) but he was not active as a recitalist, with his church appointments limited to three positions in his youth, along with one war-time appointment:

Position	Dates	Organ
Gloucester Cathedral[380] *Articled pupil to Herbert Brewer*	1909-1912	4 manuals, 39 stops
Aylburton Church[381] *Organist*	1912 (a few months only)	1 manual, 7 stops
Salisbury Cathedral[382] *Assistant Organist*	1917 (a few months only)	4 manuals, 54 stops
St John's College, Cambridge[383] *Acting Organist and Director of Music*	1941-1945	3 manuals, 52 stops

Illustration 5:15 Howells's church appointments

With the exception of Aylburton church these organs were substantial instruments, voiced in a traditional Edwardian manner, with typical registration aids of the time and situated in large buildings with generous acoustics – the acoustic in Gloucester Cathedral is particularly warm, enjoying a reverberation period of at least five seconds, and Howells often said the organ in this cathedral was his favourite. *Paean* was written in 1940, a year before Howells moved to the position at St John's College, Cambridge, and at this point he had not worked in a church position for over 23 years. Howells's command of the organ was apparently sound enough for the requirements of the position at St John's, though a contemporary in Cambridge (John Williams) did say of Howells's keyboard technique that it was '*funny, but he got round the notes*.'[384]

[380] See Appendix 9 for the instrument's specification.
[381] See Appendix 10for the instrument's specification.
[382] See Appendix 11 for the instrument's specification.
[383] See Appendix 12 for the instrument's specification.
[384] Spicer, P. (2006) *Herbert Howells.* Bridgend, Wales: Seren. p126

5.4 Paean - performing considerations

Paean is the final piece in the collection entitled *Six Pieces for Organ,*[385] with the six pieces having been written between 1940 and 1945, although the collection as a whole was not published until 1953. The word 'paean' comes from the Greek and which can be interpreted as 'a song of praise or thanksgiving'. Much of the piece, described by one commentator as '*rambunctious*',[386] is cast as a virtuosic toccata, although, as with much of Howells's music, it does have a number of mood changes. Howells's compositional style has received criticism for showing a tendency to meander at times, but Cooke feels that Howells '…. 'puts his propensity for 'note-spinning' to better use in paean.'[387]

The dedication of the six pieces to Herbert Sumsion (1899-1995), organist of Gloucester Cathedral (1928-1967) and a life-long friend of Howells, would further suggest that Howells had both the sound of the organ in Gloucester Cathedral and the building's generous acoustic in his mind when composing the works.

In *Paean* Howells does include some registration suggestions, although they are quite sparse. Howells's biographer Paul Spicer, for one, feels that one of the principal problems with all of Howells's organ music is registration and he is critical of those who misunderstand Howells's organ registrations. He gives an example of a typical Howellsian registration *fff (with 32ft.)* and asserts that 'Howells means flue (i.e.32ft.), not the reed (32ft.).'[388] However, Spicer makes this assertion based on the fact that

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[385] Howells, H. (1953) *Six Pieces for Organ* London: Novello
[386] Palmer, L. (2012) Herbert Howells (1892-1983). In Anderson, C (ed.) *Twentieth-century organ music* New York: Routledge p296
[387] Cooke P.A. (2013) Window on a complex style: Six pieces for organ by Howells. p42. In Cooke, P. A. and Maw, D.N. (eds.) *The music of Herbert Howells.* Woodbridge: Boydell Press.
[388] Spicer op.cit.

when Howells was the Gloucester Cathedral's assistant organist, from 1909 to 1912, the organ did not have a 32ft. reed. This, though, is not sufficient reason to avoid utilising such a stop, since Howells would have been aware that other instruments did in fact have such stops.

Howells himself was aware of the problems involved in performing his organ music, and the following words, taken from a letter from Howells to Harvey Grace, need to be considered when looking afresh at his music:

> the thing I hope that players will most resist is fussy and oft-changing registration. It would injure continuity, especially in Nos. 1 & 2. I feel that flexibility of movement matters far more than variety of colour.[389]

Jonathan Clinch highlights another fact that must be considered when approaching the music of Howells and this is the composer's attitude to his own works, sometimes having no recollection of what he had in his mind when writing them, such as asking in one of the Psalm Preludes for a *crescendo*, even though both hands and feet were engaged.[390]

Paean is a one movement work with nine principal sections, played through continuously, and each of these is now considered with regard to their performing challenges.

5.4.1 Section 1 (bars 1-23)

The tempo marking '*Allegro sempre brioso'* directs the player to play in a lively or fast manner, always spirited and vigorous, which suitably matches the mood suggested

[389] Grace, H.(1940) New Music *Musical Times* May:210 LXXXI Grace was a critic for the Musical Times. The comments were in conjunction with a performance of Howells's 1st and 2nd Psalm-Preludes.
[390] Clinch, J. (2013) Herbert Howells's Organ Works? Critical reception, performance practice and the case for reappraisal. *BIOS Journal 37* p130

by the title of the piece. The metronome mark, ♩. =144, is contentious, since at this pace any detail is very likely to be lost, particularly when performed in a resonant acoustic. This tempo is very challenging but not so extreme as to be unplayable if the key action is light, such as with an electric or pneumatic action, but on a typically heavy mechanical action of the 1940s, with the Swell coupled, it is likely to prove to be very difficult to sustain the requisite energy. With a pneumatic action, frequently to be found in this period, the speed of response would often not be able to cope with a repetition rate of over nine notes per second and it could be argued that Howells was more concerned in achieving an impressionistic wash of sound above the pedal D, appearing to be very energetic but without any real detail being projected. However, this argument is not supported by the specific articulation directions that are found throughout the piece:

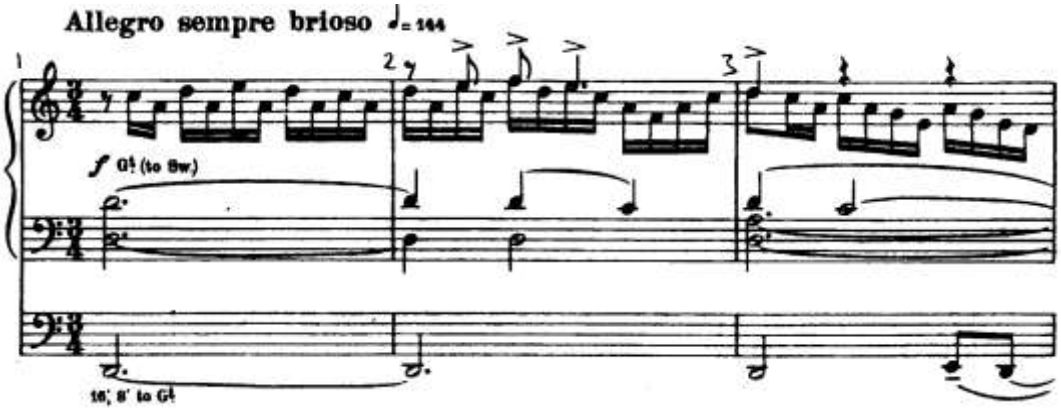


Illustration 5:16 Howells – Paean bars 1-3[391]

In the opening of *Paean* the first three bars of the right hand are mainly semiquavers with no phrase marks, contrasting with the left hand and pedal, and yet there are accent

[391] Paean (from 'Six Pieces For Organ'). Music by Herbert Howells. © Copyright 1940 Novello & Company Limited. All Rights Reserved. International Copyright Secured. Printed by permission of Novello & Company Limited.

marks on the upper voice starting in bar 2. Accents on the organ are obtained in a totally different manner from on all other instruments since a player cannot stress the note by making it louder through firmer pressure or faster attack - rather, the player has to trick the ear by releasing early the note immediately prior to the accented note, so that the slight gap between the two notes makes the second note stand out more. In the context of this piece this is yet another reason why it would seem a slower pace would allow the composer's meticulous detail to be heard. A further consideration is that Howells places slurs over some bars of semiquavers (e.g. bar 4) whereas these opening bars have no such indication and therefore there is a case to be made for playing them at least semi staccato, if not even fully staccato, though much depends on the type of action as to whether or not such detail will be transmitted to the listener.

The registration directions at the start of the piece are not detailed and use a shorthand system. The dynamic is loud (*f),* with an indication for the hands to play on the Great (G^t) with the Swell coupled (to Sw.) – the latter method of indicating the use of the Swell to Great coupler is grammatically the wrong way round but such a method of notating registration will be found not only throughout this piece but also in many compositions of the period. The Pedal has a touch more detail than the manuals, with two pitches specified, 16ft. and 8ft., along with the direction to be coupled to the Great, but no more, leaving the player to decide on the appropriate registration.

In order for the dynamic to be loud there needs to be a firm chorus on the Great, certainly up to 2ft. in order to add brightness to the florid writing, but the lowest pitch should be 8ft. since the texture of the manual writing would be greatly compromised if a sub-unison stop were introduced. In this period Great Mixtures were often voiced with some intensity and, further, many had tierce ranks (and some had additionally flattened

twenty-firsts) included in their make-up, which could muddy the overall harmony in this music, and thus it is unlikely that Howells envisaged such a stop being utilised at this point. However, the Swell could well have a chorus up to and including a Mixture, particularly as in bar 14 there is a crescendo sign which would indicate the use of the swell box at this point and a bright Swell chorus up to Mixture would make a noticeable impact. Because of this dynamic change the player needs to ensure that before starting the piece the swell box is firmly closed.

Consideration needs to be given as to whether or not to include any Swell reeds in the initial registration to add both colour and volume. Full Swell would not be appropriate since Howells specifically requests this as a change of colour in bar 23, but an 8ft. reed could be used from the opening, though the clarity of the writing would be possibly compromised here, with much depending on the regulation and speed of speech of the reed.

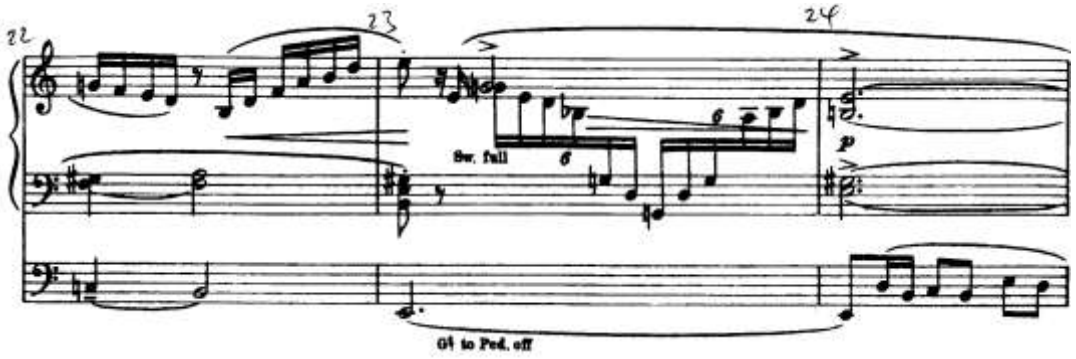


Illustration 5:17 Howells – Paean bars 22-24

5.4.2 Section 2 (bars 23-39)

The mood of the music changes in bar 23, with the registration directions reflecting this, though Howells has made an assumption that the player understands the shorthand used. Between bars 22 and 23 the *Great to Pedal* coupler needs to be taken off, Full Swell needs to be added in bar 23 immediately after the first chord, both hands transfer

to the Swell on the upbeat to the second beat and the swell box is closed in the remaining two beats. This sequence of events is challenging, occurring within a very short time span, requiring careful preparation for the synchronisation of hands and feet. A pedal reversible toe piston for the *Great to Pedal* can be operated by the right foot, leaving the left foot to play the notes in bars 22-23, Howells showing guidance for this by the phrasing detail, whilst the right hand at the beginning of bar 23 is positioned conveniently to press a Swell piston immediately after releasing the staccato quaver E.

Two important registration requirements are not specified by Howells, namely the manual change and the need for the Pedal to be coupled to the Swell. Firstly, Howells does not indicate that the player should move from the Great to the Swell but since the *Great to Pedal* is off and there are many crescendi and diminuendi for the rest of the page, incorporating dynamics of *p, mf* and *f,* it would seem that Howells assumed the Great is not to be used here. Secondly, if the player literally observes Howells's registration from bars 23 to 39 then the Pedal in this section would have only 16ft. and 8ft. stops drawn and consequently the new material played by the feet from bar 24 would not be projected sufficiently to make musical sense, sounding as non-committal rumblings in the lowest register of the organ, whereas with the *Swell to Pedal* drawn the new motive in the Pedal will be heard correctly balanced and in dialogue with the material on the manuals.

In this section in addition to the dynamic changes (achieved by using the swell box) there are a number of articulation directions (staccato, tenuti and accents) with some material relying on crisp articulation to make a full impact, such as the quasi fanfare figure at bar 25 (which is used and developed later in the piece from bar 56):

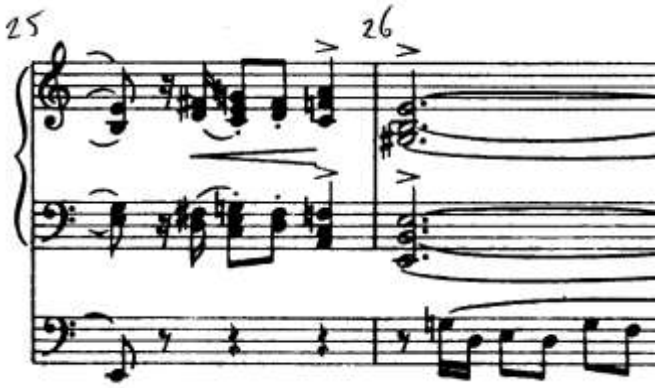


Illustration 5:18 Howells – Paean bars 25-26

With the average organ of the time that Howells knew it could be that such detail was included in an idealistic way, with him not realistically expecting such effects to work on the organ, or it could be an example of him thinking in pianistic, even orchestral terms when writing for the organ. However, with a top quality action, and in particular a fine mechanical action it is possible for the player to fully interpret Howells's ideas.

There is a further registration change in this section, at bar 32. The player is directed to play on the Choir, with two registration changes: *mf Ch.(to Sw.) and Ch. to Ped.* with the opposite meant i.e. the player is to play on the Choir with the Swell coupled through to it, and couple the Choir to the Pedal. All three of the organs of which it is known Howells had experience (Gloucester, Salisbury and St. John's) had Choir organs which were gently voiced with no real sense of chorus. They only went up to a 2ft. stop and were normally enclosed. By using the Choir and Swell coupled together at this point Howells could not have been envisaging a significant increase in volume through brighter voicing and/or bright upperwork but it could be that he wanted a warmer overall tone to reflect the more romantic feel, including accented appoggiaturas, before leading back in bar 40 to the mood of the energetic opening. At the same time the registration on the Swell could be decreased from Full Swell, both to ensure there is a

less aggressive tone on the manuals and to prepare for the return to the original registration in the next section.

5.4.3 Section 3 (bars 40-55)

This section develops the opening material and a number of bars are very similar, though the pedal point from the first section is now transposed up a perfect 4th and the harmony is richer with pronounced appoggiaturas. Howells neatly brings the hands back onto the Great by staggering the entries of the hands over bars 39- 40, achieving the requested dynamic increase *più f*, and asks for *Gt. to Ped.* to be drawn at the same time. In preparation for the dynamic markings that are introduced in bar 47 the box for the Swell needs to have been closed prior to the start of this section, and this reinforces the view that the Choir box needs to be used for the expressive shaping in bars 33-36.

5.4.4 Section 4 (bars 56-67)

There is an abrupt change into the new section at bar 56, powerfully dramatic and a development of the quasi-fanfare five-chord sequence from bar 25:

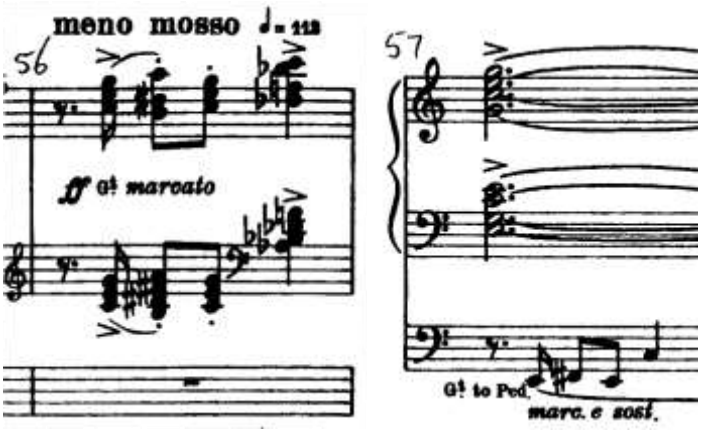


Illustration 5:19 Howells – Paean bars 56-57

A player might expect Howells to specify solo reeds at this point but he reserves this for the final occurrence of this material in bar 168 – rather, he asks for a dynamic of *ff*, to be played on the Great. This is only one notch up from the opening dynamic and the player needs to keep something in reserve for the *fff* dynamic specified in bar 110, so this should not involve the full resources of the Great but, nevertheless, a big impact is needed and the addition of a Mixture and a 16ft. flue along with the Full Swell would be appropriate. Much depends on the voicing of the Great reeds as to whether or not the player would use an 8ft.reed; the thickly voiced Trombas prevalent at the time might blur detail and the rich harmony here needs to be heard clearly.

Within this section there are articulation demands that are not suitable for the organ and further suggest that Howells was thinking orchestrally when composing this piece e.g. the Pedal in bar 57 is marked '*marc. e sost.*', with a slur over the phrase, indicating a very smooth line which is easily obtained, but it is not possible at the same time to mark the notes; similarly, the powerful fanfare chords are mostly staccato, but on certain ones Howells puts an accent on top of the staccato dot which is not appropriate for the organ.

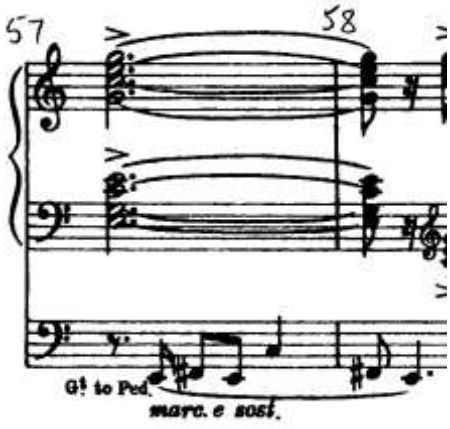


Illustration 5:20 Howells – Paean bars 57-58

The focal point of this section is reached at bar 62, second beat, when the rich chords in the hands settle on a sustained C major chord whilst the Pedal continues underneath with a chromatic motive that unsettles the potential calm. During these six bars (bars 63-68) Howells asks for a continuous *dim. e rit.*, reaching a *pp* marking on the Pedal when it finally arrives at the new pedal point on E, marking the start of the fifth section. This is a challenge to achieve with musical effect:

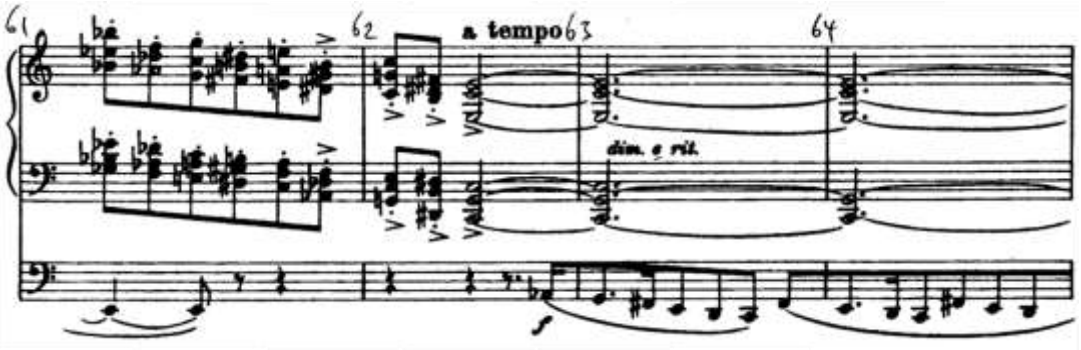


Illustration 5:21 Howells – Paean bars 61-64

If an orchestra were playing this then the transition from *ff* to *pp* could be achieved very smoothly and naturally, exploiting the flexible dynamic control that all orchestral instruments enjoy, along with letting various instruments subtly drop out of the sustained chord step by step. However, on the organ it is often harder to achieve this effect in a musically convincing manner and in this particular case Howells has created a challenge to the player since both hands are fully engaged in sustaining the chord and only the right foot is available for operating swell boxes and toe pistons whilst the left foot plays the chromatic motive.

The use of the Swell box would be of use in obtaining the effect of a *dim.*, but assuming the Great Mixture and reed are being used at this point, because of their fixed dynamic (*ff*) and not being enclosed, the moment that they are withdrawn the dynamic change will be very obvious. One possible solution is to keep the Swell (full) open until

the Great Mixture and Reed have gone in, and then start reducing the Swell stops, followed by closing the box slowly. The most logical way of withdrawing these stops would be to use thumb pistons, but the chord on the manuals is so written that no fingers are available to press any pistons. The player could omit the low E in the right hand and thereby free up the right hand's thumb, using the argument that the chord is complete without this doubled third, but Howells had such a refined ear that it must be assumed this subtle change in the texture would not be appropriate. This leaves two choices: the right foot operates the foot pistons, assuming those on the right operate the Great and Pedal stops simultaneously due to the presence of a Great & Pedal combinations coupler, and those on the left operate the Swell stops, or the player must rely on a page-turner/assistant to make the necessary registration changes.

5.4.5 Section 5 (bars 68-85)

The next section, marked '*piu espress, rubato',* is quietly reflective, chromatic in nature though still underpinned by modal tonality and the player needs to find the right balance between achieving a rather hushed, mysterious effect and yet still allowing the detail to be heard in order to maintain the listeners' attention. There are contrasts here between the Swell and Choir divisions, and by keeping two manuals uncoupled the player can exploit their differences to musical effect; the wish of the composer for this to be so is confirmed by the direction later in this section, at bar 92, to add the Swell to the Choir, though because of a number of expression marks for the passages on the Choir it must be assumed that Howells expects the Choir division to be enclosed.

The registration at the start of bar 68, played on the Swell, has to be quiet enough to match the *pp* direction and yet have sufficient clarity to project the character of the five-

note fanfare figure, complete with articulation detail. The ubiquitous 8ft. Flute and 8ft. String (commonly found on many organs' Swell divisions as the first piston setting) would not be so effective, lacking the necessary attack, so consideration could be given to a 4ft. stop (preferably a Flute or, if not available, a gentle Principal or Gemshorn) above an 8ft. Flute foundation. With a fully shut swell box this should keep the music within the *pp* dynamic range. The Choir division is called for in bar 69, with a fast moving upward scale figure that adds a quasi-blues feel to the held E major chord in the right hand on the Swell. No dynamic is shown for the Choir but it seems fair to assume it is also meant to be *pp,* and here a solitary 8ft. Flute might be effective.

Both hands return to the Swell at bar 71 and the fanfare motive is expanded, but this time the dynamic starts as *mf,* with a subsequent crescendo and diminuendo, so the registration should be changed during bar 70, with either another 8ft. stop added or a brighter 4ft. stop. From bar 74 to the end of this section the hands remain in the Choir, with two registration changes required, in bars 78 and 81 respectively, to accommodate the dynamic shifts. The registration request in bar 79 to remove the Swell to Pedal coupler makes musical sense since at this point –the Pedal material is of secondary importance to that on the manuals, but it would seem that Howells implied that the Choir should be coupled to the Pedal, particularly as a few bars later, (bars 84-85) the Pedal has a two-bar figure which needs to be defined since it answers the manuals and therefore a registration more focused than a Pedal 16ft. and 8ft. is needed. As this section moves into the next one there is one other registration change which has to be executed quickly – in bar 86 the hands move back to the Swell, and on the first beat of this bar Howells asks for the Swell to Pedal coupler to be added. There is a brief

moment in bar 85 where the right hand has a rest which allows the player to either pull out the stop by hand or press a reversible piston.

5.4.6 Section 6 (bars 86-109)

Over the next 24 bars Howells gradually builds up tension, achieved by a gradual crescendo and a gradual accelerando. Howells gives quite a lot of detailed suggestions, at least concerning which manual to use, and when the climax is reached at bar 109 he ensures that the effect at the return of the fanfare figure at bar 110, played on *fff* Great, is suitably dramatic and quite shattering, particularly since preceding this moment the hands have remained on the Choir (with the Swell coupled through). At bar 86 the writing for the manuals is initially quite contrapuntal and there is a case for quite a bright chorus to be used here (i.e. 8ft.4ft.2ft.). At bar 92, when he asks for the Swell to be coupled to the Choir, the imitative writing now includes the Pedal, with the motive starting in this part, and though the only direction is for the Pedal to be played '*un poco piu f*' it must be assumed that both Swell and Choir are coupled through to the Pedal for the voices to balance.

Thought is needed concerning the transition starting at bar 96, where Howells asks for '*mp subito'* and *'add full Sw. (closed)*'; since this is preceded in bar 95 by a crescendo mark it would appear that he wants the addition of the full Swell to be masked under a relatively loud Choir. The crescendo leading up to bar 96 is most easily achieved by opening up the Choir box, but if the Choir is unenclosed then the player might be able to add a stop or two (maybe a 2ft. and/or Mixture) in bar 95, by using pistons on the Choir. There is a case to be made for suggesting a 'lesser' Full Swell to be used initially in bar 96, since there are fifteen bars of gradual crescendo, and to

attempt to achieve this just by using the Swell box is with most, if not all organs, too restrictive. It is clear that the player needs something in reserve for the last four bars of this section, bars 106-109, when Howells asks for *f cresc. molto.* 'Lesser' Full Swells can be achieved in various ways, with much depending on the instrument and voicing, along with the means to set up a piston with the desired registration on it. One possibility is to have just one reed drawn at 16ft. pitch, along with chorus up to Mixture; another registration could be the chorus as before, with an 8ft. reed and a 16ft. flue. Other reeds could then be added gradually to increase the volume and add further brightness and colour to the texture. Consideration could be given to reserve the opening of the swell box until these last four bars, as the effect of a full Swell opening up on the rich chords, supported by the slightly sinister stalking Pedal line, would be very dramatic.

5.4.7 Section 7 (bars 110-140)

The next section has features commonly associated with Howells: rich harmonies, yearning melodies with snatches of countermelodies, chromatic colouring yet secured with a clear tonal centre. The dynamic marking is very loud but important detail needs to be heard so the player has to ensure the registration has both power and sufficient clarity. A 16' flue stop on the Great should be appropriate as the tessitura is quite high, with chorus work up to Mixture used, but if the Great reeds are on high pressure and are particularly intense (such as traditional Harrisons' Trombas) then it might be best to omit them and rely on the coupled Full Swell for extra energy and colour.

Howells's registration in bars 110-111 raises a concern regarding the balance between the hands and the feet. The Great is marked as *fff* but the Pedal is marked as *ff*

marc. e sonor[e] ,and yet Howells stipulates that the Great should be coupled to the Pedal which, irrespective of the stops already drawn on the Pedal, must result in the Pedal dynamic at least matching that on the Great. This appears to be an oversight and the registration should be left as marked, since the material in the Pedal is closely related to that in the hands and must be projected.

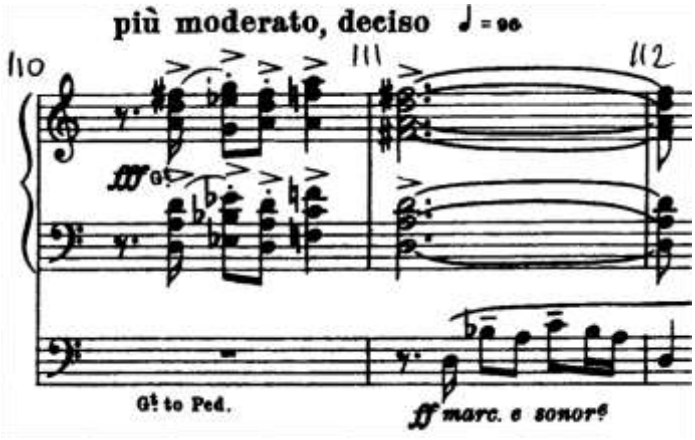


Illustration 5:22 Howells – Paean bars 110-112

From bars 125 to 140 the Great (and possibly the Pedal) needs to be reduced in volume, leaving the Full Swell to give the necessary intensity, but with flexibility in dynamic shaping through the use of the swell box. The Pedal line needs greater emphasis in bar 129, marked *piu marc.*, a phrase based on material heard in the hands previously, and a strong 16' reed might well achieve the desired effect here.

5.4.8 Section 8 (bars 140-167)

At bar 140 the opening Toccata figuration returns for the final time and it is logical to utilise the same registration as the opening. With the sudden change at bar 151, with the tempo increasing to *vivo assai* (and still with an optimistic metronome marking of 𝅗𝅥. = 144) Howells specifies both hands to play on the Choir (with the Swell coupled) along with the Pedal coupled to the Choir. The dynamic build-up in these seventeen

bars has to be paced carefully, utilising both swell boxes and the gradual addition of stops. The player might add Full Swell with the box closed at bar 151 and reserving the opening of this box until bars 165 to 167 which would lead dramatically into the final section.

5.4.9 Section 9 (bars 168-179)

The fanfare motive heralds the start of the final section, and Howells for the first time specifies *Solo Reeds fff,* with the Pedal coupled through.

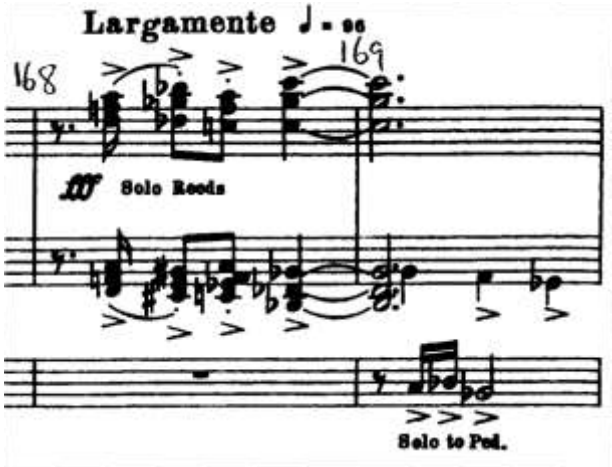


Illustration 5:23 Howells – Paean bars 168-169

There are several interpretations of this registration, along with several solutions, depending on circumstances. *Solo* could mean the Solo division (normally the fourth manual) and traditionally the loudest reed stop is a Tuba on high pressure, voiced to project over much, if not all, of the rest of the organ. *Reeds* as a plural suggests more than one stop so this could be interpreted as a number of Tubas at different pitches e.g.16ft., 8ft. and 4ft., or one powerful reed with octave couplers, though *Reeds* does not have to mean more than one stop, in the same way that *Strings* can simply mean one stop. Not all organs have such powerful stops, however, but the contrast in tone is

clearly specified by Howells and the player could find an alternative registration by utilising all available reeds on the manual divisions

The Pedal direction for bars 169-170 can be interpreted in two ways. All Pedal stops could be withdrawn so that the material is seen simply as an extension of the manual writing. There is logic in this assumption, but for sheer dramatic effect at this climactic moment full Pedal, including all reeds, would make a more definite statement. The final bars 171-179 revert back to the Great, with the dynamic at *ff*, and the Pedal no longer coupled to the Solo reeds. The swell box needs to be kept closed initially, enabling the player to observe the final crescendo that leads to the blazing D major chord marked *fff*, with the accent in bar 177 on this final chord suggesting that the player could couple through the reed or reeds used in bars 168-171.

5.5 Percy Whitlock and the organ

Percy Whitlock (1903-1946) was not only one of the leading organists of his day but also a composer whose music gained considerable popularity in his lifetime. His compositional style is notable for its lush harmonies, showing awareness of the popular trends of the day, along with a penchant for quasi-folk song melodies. As with much music written in a traditional tonal style in the middle of the twentieth century Whitlock's music went out of fashion in the latter part of the century, but in recent times there has been renewed interest in his compositions. He did write some large-scale pieces, including a symphony for organ and orchestra, but it is as miniaturist for the organ that he is shown at his best. (A list of his organ works will be found in Appendix 5).

Whitlock was first and foremost a professional organist, unlike Howells and Leighton, and he was equally at home with the classical repertoire and with that of a lighter nature. He held church appointments, as organist and choirmaster, and he also worked in the secular world as Borough Organist in Bournemouth; he was a busy and popular recitalist giving concerts throughout Britain, and broadcast on a regular basis for the BBC. Over his relatively short lifetime Whitlock held three significant professional appointments but his understanding and knowledge of the organ went far beyond just these three instruments, due both to his concert work and his natural curiosity for organ design and construction.

Position	**Dates**	**Organ**
Rochester Cathedral[392] *Assistant Organist*	1922-1930	3 manuals, 41 stops
St Stephen's Church, Bournemouth[393] *Organist*	1930-1935	3 manuals, 41 stops
The Pavilion, Bournemouth[394] *Borough Organist*	1932-1946	4 manuals, 141 stops

Illustration 5:24 Whitlock's principal professional appointments

The organs in Rochester Cathedral and St Stephen's Church were both traditional instruments (by Hill and Harrisons respectively) with limited registration aids, whereas the Pavilion organ was a substantial Compton instrument, extended from twenty-two ranks, designed for both the classical and popular repertoire, and equipped with a large array of registration aids including fully adjustable pistons, somewhat of a luxury and rarity at the time. Hardwick[395] says that Whitlock's ideal instrument had four manuals, with several enclosed divisions, and a full array of electrical accessories, including sub- and super-octave couplers, but his pieces do adapt well to lesser instruments.

[392] See Appendix 13 for specification
[393] See Appendix 14 for specification
[394] See Appendix 15 for specification
[395] Hardwick (2003) *op.cit.*p146

Whitlock experimented with voicing and registration throughout his career and passed on his experience through articles for popular magazines of the day, including *The Musical Opinion*, *The Musical Times* and *The Organ*, and this concern for detail will be found in the *Six Hymn-Preludes*. However, as Scott Whitely notes, although Whitlock gives detailed directions in his printed scores 'nothing survives of Whitlock's own markings on his own organ scores.' [396]

5.6 Six Hymn-Preludes - performing considerations

Whitlock's *Six Hymn-Preludes*[397] were published in 1945 by Oxford University Press (Whitlock's publisher throughout his life) although the pieces themselves were written between 1923 and 1944, a span of twenty-one years.[398] There is no musical link between the pieces but, in addition to their obvious liturgical use, they work well as recital material, best divided into two groups of three, with the two slow pieces (*Song 13* and *Werde Munter*) framed by the more dynamic compositions.

Whitlock was aware of the so-called 'Baroque Revival', as shown in his article written in 1943 for *The Organ,*[399] and whilst the *Six Hymn-Preludes* do not appear to have been conceived as pastiches of the Baroque period, there are clear pointers to the influence of Bach, especially in numbers 1, 2, 4 and 5. Hardwick considers this music to 'contain(s) a mixture of predominantly early 20th century Romantic style with certain German Baroque features.'[400] Hardwick states that the use of a mutation stop (Flute 2⅔) in conjunction with an 8ft. stop is 'presumably in imitation of Baroque organs.'

[396] Scott Whitely, J. (2003) Percy Whitlock on organ design and registration *The Organists' Review* Vol. LXXXIX November p318
[397] Whitlock, P. (1945) *Six Hymn-Preludes* Oxford: Oxford University Press
[398] Riley, M. (2003) *Percy Whitlock.* York: Ebor Press p234
[399] Whitlock, P. (1943) The Baroque Revival *The Organ* January Vol. XXII no. 87 pp127-131
[400] Hardwick (2003) op.cit.p157

However, this could be reading too much into one particular registration, as if it was felt no other composers in this period had specified such combinations before.

The first three of the six pieces are now considered

5.6.1 Hymn-Prelude No. 1 – Darwall's 148th

The Prelude is based on the tune written by John Darwall (1731-1789) which is commonly sung to the hymn 'Ye holy angels bright', with words by Richard Baxter (1615-1691); the Prelude was written in November 1923,[401] along with the Prelude on *Werde Munter,* whilst Whitlock was both a student at the Royal College of Music and also assistant organist of Rochester Cathedral. Each of the four phrases of the tune is preceded and followed by free imitative writing, with uneven phrase lengths, and the melody itself is always played on a solo Tuba. Registration suggestions are detailed, as in all of the six pieces in this collection, with this particular composition having no fewer than twenty-one changes in a piece lasting 2½ minutes.

The opening registration is stated at the head of the score:

Prepare:

Solo: Tuba 8ft.

Sw: to 15th (no 16 ft.)

Gt: Diaps. 8ft. + Sw.

Ped: Heavy 16 ft. 8ft. + Gt.&Sw.

The registration calls for three manuals, Great, Swell and Solo, though the latter does not have to be a fourth manual but could be the Choir manual containing a loud solo reed – this, in fact, is what the organ in Rochester Cathedral had in the 1920s. The

[401] Riley (2003) op.cit.p173

Tuba 8ft. has no indication of dynamic but it is to be assumed that there is sufficient power and projection for it to dominate the texture above the Gt. + Sw. coupled with Pedal. The direction *'Sw. to 15th'* means a chorus of 8ft., 4ft. + 2ft. and normally of Diapason tone, but Whitlock also specifies *'(no 16')*' which could indicate that normally a player of the time would have considered additionally drawing a manual 16ft. flue. In keeping the registration 8ft. pitch and above Whitlock has ensured that there is some clarity in the contrapuntal writing. No indication is given as to whether or not the swell box should be open or closed at the beginning of the piece, but in bars 20-21 there is a crescendo mark and in order for this to work the player needs to ensure the swell box is closed prior to playing.

The direction for the Great stops, '*Diaps. 8ft.'*, is registration shorthand that can be interpreted either to be read as *Diapason* or the plural *Diapasons*. Thus the player could choose simply one open diapason, or one open diapason together with one stopped diapason, or two or more open diapasons, producing a warm, possibly thick and rather opaque tone. The consideration of balancing the Solo reed will also affect the choice here. The Pedal registration, asking for *Heavy 16ft. 8ft*., implies at least one large-scale 16ft stop, such as an Open Wood, and this would appear to confirm that Whitlock requires a weighty majestic overall tone for the opening statement which builds up imitatively.

For much of the piece Whitlock includes precise phrasing, indicating that a sustained line is needed, but there are places, including the opening two bars (see example) and for much of the Solo Tuba lines where the lack of phrasing does not make it fully clear what is expected of the player.

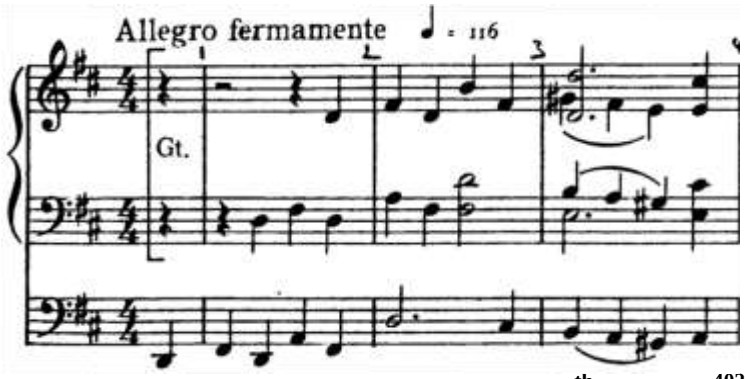


Illustration 5:25 Whitlock – Darwall's 148th bars 1-3[402]

There are a few bars, e.g. bar 27 and 57, where staccato is expected in the right hand, but it seems likely that Whitlock, if he intended phrases such as the opening to be detached, would have marked the notes accordingly. However, it can be argued that there needs to be some articulation contrast at these places, and thus a possible solution is to play these notes semi-staccato.

Whitlock's ability as an organist is immediately noticeable in the Pedal writing which is independent of the hands and exploits the range of the pedalboard. The Pedal here often has equal melodic importance, not just a simple bass line providing harmonic support to the manuals, and Whitlock ensures that this voice is balanced correctly by indicating that both Great and Swell are coupled through. With his burgeoning interest in, and awareness of, Baroque practice it might be expected of him to suggest an independent Pedal registration here, particularly since at the time the piece was published he had at his regular disposal the large Compton organ in the Pavilion, which boasted a very comprehensive Pedal division. However, because these pieces were clearly written for a mass market (his publishers Oxford University Press were always

[402] 'Prelude on Darwall 148th' by Percy Whitlock from 'Six Hymn-Preludes Book 1' © Oxford University Press 1945. Extracts reproduced by permission. All rights reserved.

keen to publish any of his organ music) and Whitlock knew too well that the majority of organists and their instruments would not be able to offer such registrations, it would have been logical to keep to a more traditional registration.

The first registration change occurs at bar 9 with the player instructed to *'add to Sw.'*, and this is carefully positioned, with an arrow pointing to the second beat which is immediately proceeded by a quaver rest, giving ample time to press a thumb or toe piston. Whitlock gives no clues as to what should be added here: neither pitch, nor tone colour nor dynamic level are suggested. The addition of the Swell Mixture could seem logical, but this stop on top of the heavy foundation on the Great might seem too bright, particularly for the period, so it might be more appropriate to add a quiet reed, such as an oboe, which would add some extra colour without upsetting the overall balance.

At bar 13 the Tuba is used for the first time and for most of this piece, apart from the final stages, Whitlock restricts the Tuba to playing a monophonic line, delivering the hymn melody nearly straight, though Whitlock does elongate some of the rhythms and adds simple melodic decoration, showing the influence of Bach's chorale preludes. Whitlock's writing for the organ throughout his career shows a clear affection for the effect of a loud solo reed playing against the rest of the organ. Not all organs possess such stops but this does not mean that this particular piece cannot be played on such instruments, though care needs to be taken to ensure the balance is correct. Whitlock does not give an indication of the relative balance of the hands at this point, as if he assumes the player must realise that the right hand (on the Tuba) is considerably louder than the left hand and Pedal. However, in all the passages involving the Tuba the right hand and left hand parts do not overlap or cross and therefore the whole piece could be played on one manual throughout, though it appears unlikely that Whitlock envisaged

this. Further changes of manual are marked throughout the score, and Whitlock's practical skills and experience are evident since he never asks for an awkward or even impossible manoeuvre, always giving plenty of time to move between the keyboards.

The player is directed to move to the Swell in bar 30 and at the same time *'Sw.(Full)'* is called for. Though not marked as such, the swell box must be closed at the very start of the phrase, as there is an immediate crescendo to *ff*, followed by a diminuendo. Since the box has been opened ten bars earlier (in bars 20-21) the player has two options as to when to close it in preparation for this new colour:

1. Swiftly close the box in bar 30 on the first beat whilst changing the registration to Full Swell and moving the left hand from the Great to the Swell.
2. Close the box in bar 27 during the rests in the left hand and pedal.

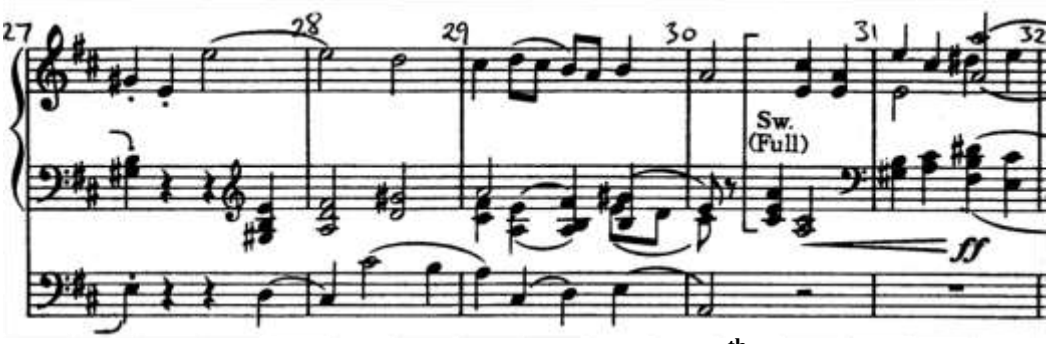


Illustration 5:26 Whitlock – Darwall's 148th bars 27-31

The first option adheres to Whitlock's directions but is dependent on the required thumb piston or foot pedal being suitably located for easy access, along with a responsive swell pedal. A touch of rubato in bars 29-30, along with a slight breath in the phrasing would help to give the player an extra few seconds to execute this manoeuvre, though there would be a slight loss of momentum and energy. The second option is far easier to control but the dynamic in the left hand would change from the end of bar 27 up to the beginning of bar 30.

The next section starts in bar 37 and the change of registration reflects the mood. The composer asks the player to *'reduce Sw. (8 & 4 ft.)'* and also *'add Gt. 4ft'*. The type of 4 ft. on the Great is not specified, but as there are Diapasons already drawn in this division this should be a Principal 4ft. to blend effectively. Six bars into this phrase the direction *'add to Sw.'* is inserted on a quaver rest in the left hand, giving the player a brief moment to press a piston; no clue is given as to what is required, but a 2 ft. stop would seem appropriate, matching the registration from earlier in the piece. A further requirement for the start of this section is to ensure that the swell box is closed since Whitlock asks for dynamic shading in bars 49-50 – allied to this shaping are the two registration changes that occur in bar 47 *('Gt. 4ft. off')* and in bar 51 (*'add Gt. 4ft.')* which appear to be of minor significance but in fact allow the Swell to be more pronounced due to the Great being reduced in volume and tone. The final registration change on this third page is on the third beat of bar 58, where *'add Full Swell'* comes right in the middle of a phrase, which might sound rather uneven, but since the box has been closed in bar 50 this change should be reasonably masked by the Great 8ft. and 4 ft. stops.

On the final page the build-up is carefully paced, starting with *'add Ped. Reed 16 ft.'*, which gives extra prominence to the Pedal line in bars 60-63 which has two variants of the hymn's opening arpeggiated phrase. For the hymn's last phrase, played on the Solo Tuba, *'add to Gt. (15th)'* is suggested, but the Great Mixture is not included, a reminder that Great Mixtures in this period were often reserved for climactic or special effects. Full Pedal is asked for in bar 75, and since this division already has a 16 ft. Reed and heavy 16 ft. and 8ft. stops the player could add a stop or stops at 32 ft. pitch (if available) to bring out the final variation of the arpeggio figure, or even consider

coupling through the Solo Tuba, which could lead neatly into the four-beat fanfare on the Tuba in bars 77-78. The climax of the piece is reached in the last three bars and the composer asks for *'Full'* which can be interpreted in a number of ways: the Swell and Pedal are already full, so on the Great a Mixture and a 16 ft. flue could be added, along with reeds. The player could couple through the Solo Tuba, but this special effect can be very overpowering when the Tuba is especially strong and is best reserved for the end of a recital.

5.6.2 Hymn-Prelude No. 2 – Song 13

This Hymn-Prelude is based on the tune written by Orlando Gibbons (1583-1625) which is commonly sung to the hymn 'Holy Spirit, Truth Divine', with words by Samuel Longfellow (1819-1892). There are four phrases in Gibbons's melody, and this Hymn-Prelude is contrapuntal throughout, with a trio texture in the phrases preceding and following the solo melody, changing to four-part textures when the melody is presented. The influence of Bach on an organist-composer such as Whitlock is to be expected[403] but it is possible that Whitlock was also aware of the *Hymn Tune Prelude on 'Song 13'* by Vaughan Williams[404], published in 1930 by OUP, though in the latter the writing seems to be more suited to the organ, as noted by a contemporary reviewer.[405]

[403] In his Chorale Prelude on *'Mein Seele erhebt den Herren BWV 648'* Bach does call for two manuals and pedal and there are similar textures to Whitlock's Hymn-Prelude, though Whitlock does call for three manuals in his piece.
[404] Vaughan Williams, R. (1930) *Hymn Tune Prelude on 'Song 13'* Oxford: OUP
[405] Grace, H. (1930) New Music *The Musical Times* Vol. 71, No. 1054 pp 1089-1092

The registration is fixed at the beginning of the piece, with no other changes required, reinforcing the view that Whitlock was consciously attempting to replicate the sound world of the Baroque period:

Prepare:

Sw: Salicional 8ft. Flute 4ft.

Gt. or Solo: Horn 8ft. (or Flute)

Ch: Viola 8 ft. Flute 2⅔

Ped: Soft 16ft. (String tone) + Sw.

These are very precise, if not even idiosyncratic tone colours, for what appears to be a neo-Baroque piece, since the registrations are not ones that are normally associated with North German organ playing in the eighteenth century.[406] No dynamic markings are given, leaving it to the player to decide what balance is appropriate, but since the Choir and Swell are in dialogue with each other throughout, these manuals should be of equal importance, with the Solo stop at a slightly louder level. The Pedal writing is fully independent, although Whitlock does ask for it to be coupled to the Swell, which again reflects the fact that many of the organs in the period lacked a fully developed Pedal division.

There is a predominance of string colour in the piece's registration: Salicional (Swell), Viola (Choir) and String Tone (Pedal), but to modern ears this combination can seem unusual, insofar as Whitlock expects the foundation stops on each division to be strings, which are thinner in tone than the flute or diapason tone that are normally used. As in all cases much depends on the voicing of the individual organ, but the number of

[406] Owen. op.cit. p135

distinctly string stops required possibly reflects the organ Whitlock played regularly at the time of the publication of these pieces, i.e. the Compton in Bournemouth's Pavilion.

To fully replicate the suggested registration on the average organ can be a challenge. The Swell registration is straightforward, since most moderate to large-sized instruments will have on the Swell an 8 ft. string stop, such as a Salicional, a Viol da Gamba, a Viol d'orchestre, or a Viola Aeoline[407], along with the requested 4 ft. flute. The 8 ft. registration for the Choir is more problematic since the traditional Choir division of this period rarely has a large-scale string such as a Viola but rather has a Dulciana, which is a type of very quiet Diapason with slightly stringy qualities. With such a very quiet foundation stop the mutation above, in this case a Flute at 2⅔ft. pitch, could easily dominate, so much so in fact that the ear hears the mutation more than the fundamental unison pitch, resulting in the right hand appearing to be playing a compound perfect 5th higher than expected, somewhat distorting the contrapuntal dialogue.

Equally problematic is the Pedal registration when Whitlock asks for *'Soft 16ft. (String tone) + Sw.'*. The type of 16ft. String tone to be found in Pedal divisions can include Violone, Contra Geigen, Dulciana and Salicional but these last three are often only the preserve of large instruments. A Violone 16 ft. can be found in moderate to large-sized instruments but in many cases the voicing will be at least *mf*, if not more, and to find one with a *p* dynamic is less likely. An alternative to Whitlock's registration is for the player to keep to the principal idea of an 8 ft. foundation stop on each manual and a 16ft. stop on the Pedal, but to substitute Flutes for the Strings, keeping the 4ft. flute on the Swell and the 2⅔ft. Flute on the Choir. With the Choir consideration should

[407] Whitworth (1956) op.cit.p24

be given to using a 4 ft. Flute in addition to the 2⅔ft. Flute, since there are various points in the piece (bars 2, 41, 55, 59 and 61) when the music on the Choir drops below middle C (to a B flat) and at these points the mutation can be too prominent, with the harmonic shape momentarily confused – however, these are only brief moments and it might be the case that Whitlock wanted such an effect.

The final registration consideration is the solo stop for the hymn melody. Whitlock would appear to have wanted a reed as his first choice, indicating *'Horn 8ft'* with '*(or Flute)'* as an alternative. 'Horn' is rather ambiguous, since there are two very different organ stops to be found with that name. The less common type is a high-pressure stop (called *'French Horn'*) such as the one installed by Willis in 1930 in the organ of St Paul's Cathedral, which has a smooth tone not dissimilar to that of an actual orchestral French horn; the more common use of the name 'Horn' is be found as the main 8 ft. reed on Swell organs on various organs (examples include instruments by Lewis at St Mary Star of the Sea R.C. Church, Hastings[408], and St. John the Evangelist, Bournemouth[409]**),** stops which in most cases have a character more akin to a Trumpet or Cornopean. None of the three organs commonly associated with Whitlock had a Horn stop, so it cannot be stated with certainty which type of reed he had in mind but the stop chosen here ideally should contrast well with the material on the Swell and Pedal.

The alternative suggestion for the solo line *('or Flute 8ft')* is somewhat surprising, since a Flute stop would not cut through the texture of the left hand and pedal in the same way as a reed would do, and whilst a generously scaled solo Flute might have the power to dominate, it is possible that the left hand's contrapuntal writing would tend

[408] http://www.npor.org.uk/NPORView.html?RI=R00868 accessed 5.7.12
[409] http://www.npor.org.uk/NPORView.html?RI=A00298 accessed 5.7.12

ultimately to obscure the melody. Ultimately the player might be restricted on a three-manual instrument when it comes to choosing a solo stop due to the fact that the Swell and Choir are already being used for the Trio passages, and in such circumstances a bright Open Diapason on the Great could well provide the correct contrast and balance.

5.6.3 Hymn-Prelude No. 3 – Deo Gracias

The third prelude in this set is based on the fifteenth-century English traditional melody *Deo Gracias* which is used for the hymn *O love, how deep, how broad, how high* which comes from a fifteenth-century Latin text, translated by Benjamin Webb (1819-1885). The piece differs from the first two Hymn-Preludes in that the hymn melody is not explicitly stated but rather used as the basis for a free fantasy full of energy and drive.

As with the other Hymn-Preludes Whitlock gives detailed registration at the top of the score:

Prepare:

Solo: Tuba 8

Sw: to Principal, with Mixture

Gt: *f* Diaps. 8 ft. + Sw.

Ch: *f* 8ft. 4ft. 2ft.

Ped: *f* 16ft 8ft. + Gt.

Along with the stop directions Whitlock stipulates for the first time in these Preludes the dynamic levels for the Great, Choir and Pedal divisions. The Swell registration is not fully detailed and is open to interpretation. As written, the directions indicate 8ft. and 4ft. Diapason tone plus a Mixture, but no mention is made of a 2ft. stop, which

might simply be oversight as it seems logical to draw the 2ft. stop to fill the gap between the 4 ft. stop and the Mixture. In the first Prelude Whitlock explicitly says *'no 16 ft.'* but here there is no such direction and a non-obtrusive 16ft. flue might be added to complete the chorus. There is no indication as to the position of the swell box at the start of the piece, but at bar 12 and bars 21-22 there are crescendo directions, and thus the player should ensure the box is tightly shut at the opening.

Two registration changes are required on this page: *'add Gt 4ft.'* in bar 7 and *'add Full Sw.'* in bar 10. The precise location for the first direction is unclear, with the arrow pointing between the second and third quavers of the bar, whereas it is more musically logical for this addition to come on just on the second quaver in order to maintain consistency with the music's phrasing. The second change in this line is the addition of Full Swell, and this can be achieved with the left hand pressing a suitable thumb piston on the first beat of bar 10, with a fraction more time given for the left hand to reach the piston by the right hand taking the left hand's Bb in this bar.

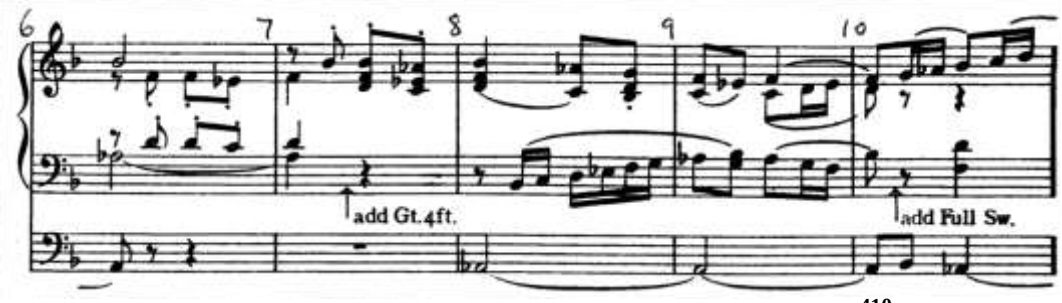


Illustration 5:27 Whitlock – Deo Gracias bars 6-10[410]

Following on from the addition of Full Swell Whitlock further builds up the dynamic level as the piece moves towards the cadence in bars 21-22 by asking in bar 16

[410] 'Prelude on Deo Gracias' by Percy Whitlock from 'Six Hymn-Preludes Book 1' © Oxford University Press 1945. Extracts reproduced by permission. All rights reserved.

for the player to *'add to Gt.'*. This could be no more than adding a 2 ft. stop, but consideration could be given to also including a 16ft. flue, which would add further depth to the already established 16ft. tone on the manuals (due to the addition in bar 10 of Full Swell). After the cadence in bar 22 the music changes mood and the decrease in dynamic and tone is carefully controlled, moving in stages with breaths in the phrases to facilitate the clear directions:

- *reduce Gt. (8ft. 4ft.)*
- *reduce Sw.*
- *Sw. to Gt. Off*
- *reduce Gt.& Ped (Diaps.)*

Over the next few pages Whitlock imaginatively exploits the differences between the Swell, Great and Choir. The manuals are kept uncoupled, allowing these sonorities to be contrasted:

- Great 8ft. Diapasons
- Full Swell
- Choir chorus of 8ft. 4ft. and 2ft.

For the latter registration it is not specified whether the stops should be flutes or diapasons but Whitlock does ask for the chorus to be *forte,* which on the typical gently voiced Choir divisions of the period might prove not to be achievable. The manual changes are well-conceived, reflecting a composer's full grasp of console management. At bar 70 the Tuba is used for the first time in this movement, playing a two-bar phrase of a quasi-fanfare nature, but if such a stop is not available alternative registrations should be considered - in this particular phrase the Full Swell would sufficiently contrast with the Great Diapason chorus.

It is at the next appearance of the Tuba, in bar 78 in the left hand's tenor register, that needs care:

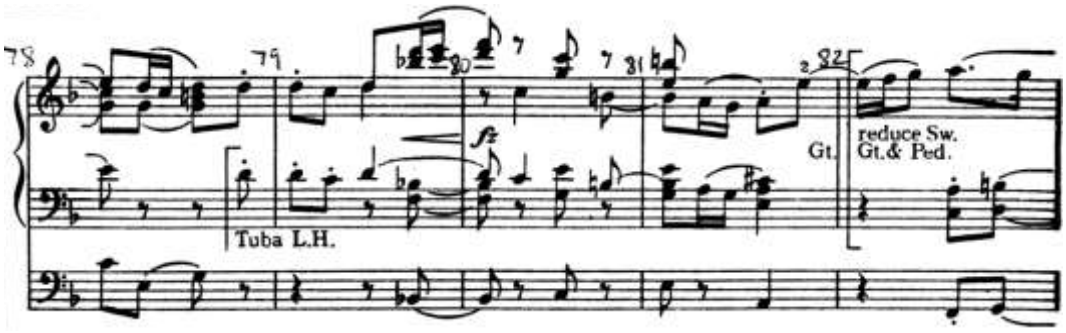


Illustration 5:28 Whitlock – Deo Gracias bars 78-82

Instead of the Tuba playing a monophonic line, Whitlock decorates this principal melody (which is doubled in the right hand in the alto) with two-note chords. In this tenor range many Tuba stops are voiced very loudly, with sufficient power and projection to obliterate the other voices. There is a case to be made for keeping the left hand on the Great at this point, since the melody will still come through as it is doubled in the tenor and alto and the balance of all the voices will be secure.

A similar problem to the registration change highlighted in bar 7 occurs in bar 82, where Whitlock instructs the player to *'reduce Sw. Gt. & Ped.'* but it is not clear where exactly he intends this to be. A musical solution is to make this change in bar 81 on the last quaver of the bar which is where the new phrase actually starts. Another registration change that has some ambiguity is at bar 113, where the direction *'Add Full Sw.'* is placed in the last few beats of a phrase, whereas a more logical place to change the stops occurs over the bar line between bars 114 and 115. Alternatively the change to Full Swell could be made between bars 108 to 110 when both hands are playing on the Choir, though this would not adhere exactly to Whitlock's tonal scheme.

The Tuba is used again in the tenor register, played by the left hand, this time in bar 120, and whilst the melodic material is important here, needing to be brought out,

Whitlock additionally thickens the texture by including some chords on the Tuba. Hence the same concern about musical balance applies here. Whitlock himself was aware of the problems associated with over-powerful Tubas, noting of the old organ of Rochester Cathedral, that

> on adding the tuba to full organ a total loss of balance results, practically nothing but the tuba and mixture work being audible.[411]

However, since the left-hand chords are doubled by the right hand it would appear that this richness of sound was deliberately included. Alternative registration here could include the left hand on the Great with the right hand on the Swell or even on the Choir.

At bar 140, following a crescendo mark, the player is directed to *'Fix Sw.'* an instruction associated not with a balanced swell pedal but rather with a trigger swell pedal (see 3.2.1). 'Fix Swell' instructs the player to ensure that the trigger pedal is fully depressed and that the ratchet keeps it fully open, and the inclusion of this instruction might appear to be rather archaic, especially with a piece written for a four-manual organ. However, a number of substantial organs at the time of the publication of this piece still had trigger swell pedals, such as those of the Temple Church and St George's Chapel Windsor, along with many medium and small instruments, and the use of this term suggests that Whitlock wrote the music whilst organist of St Stephen's Church, Bournemouth, the organ of which had two trigger swell pedals.

On the final page, as the music grows towards its final climax, the registration directions clearly indicate that Whitlock seeks for the player to use the full resources of the instrument, with *'Full Gt.'* specified in bar 157, coming on top of the Full Swell

[411] Riley, M. (2007) *The Percy Whitlock Companion.* Staplehurst: The Percy Whitlock Trust. p16.

which has already been in place for a few pages. Taken literally, Full Great means the mixtures and reeds of the Great are to be used in a fast-moving passage, and this might mean that clarity of line is lost to some extent in order to achieve sheer volume of sound.

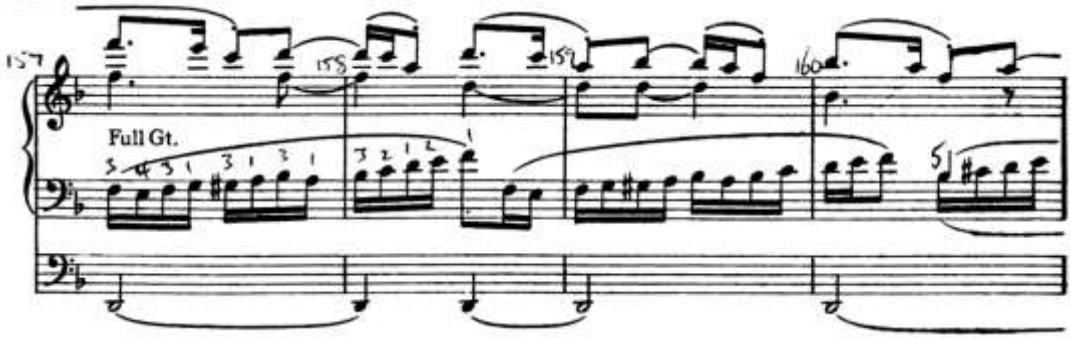


Illustration 5:29 Whitlock – Deo Gracias bars 157-160

Further additions are called for in the final line, with Full Pedal following shortly after a two-bar phrase on *'Tubas'.* The use of the plural indicates additional stops, but in practical terms this might mean the use of octave and sub-octave couplers on the Tuba since very few organs have the luxury of a battery of Tubas to draw on. For the final blazing D major chord in the last bar Whitlock calls for *'Full Organ'* and, having exhausted the possibilities of the Great, Swell and Pedal divisions, the player is left to couple through the Tubas, a combination that might appear to the present day to be too extreme but is not uncommon in the early part of the period 1945-1970.

5.7 The organs

The two organs chosen for this investigation come respectively from the beginning and end of the period 1945-1970, with clear contrasts in tonal design, mechanisms and registration aids which are listed below.

5.7.1 Methodist Central Hall, Coventry

Date/Builders: 1913. Rebuilt by Jardine in Methodist Central Hall in 1949

	Pedal			**Great**	
1	Harmonic Bass	32	23	Double Open Diapason	16
2	Open Diapason	16	24	Large Open Diapason	8
3	Violone	16	25	Small Open Diapason	8
4	Bourdon	16	26	Wald Flute	8
5	Lieblich Bourdon	16	27	Principal	4
6	Octave	8	28	Harmonic Flute	4
7	Flute Bass	8	29	Fifteenth	2
8	Trombone	16	30	Dulciana Mixture	III
9	Drums *(not working)*		31	Tromba	8
			32	Gongs *(not working)*	
	Choir				
10	Viol d'Gamba	8		**Swell**	
11	Dulciana	8	33	Lieblich Bourdon	16
12	Vox Angelica	8	34	Open Diapason	8
13	Cor d' Nuit	8	35	Echo Gamba	8
14	Lieblich Gedact	8	36	Voix Celeste	8
15	Lieblich Flote	4	37	Lieblich Gedact	8
16	Harmonic Piccolo	2	38	Geigen Principal	4
17	Clarinet	8	39	Dulciana Mixture	III
18	Orchestral Oboe	8	40	Contra Fagotto	16
19	Tromba (from Great)	8	41	Cornopean	8
20	Carillon *(not working)*		42	Oboe	8
21	Gongs *(not working)*		43	Vox Humana	8
22	Tremulant		44	Clarion	4
			45	Tremulant (light wind)	
			46	Tremulant (heavy wind)	

Console: Detached Stop type **Drawstop** Action **Electro-pneumatic**

Couplers

Swell to Pedal
Swell to Great
Swell to Choir
Swell octave
Swell suboctave
Swell unison off
Choir to Great
Choir to Pedal
Choir octave
Choir suboctave
Choir unison off
Great to Pedal

Accessories

4 thumb pistons each to Great and Swell
1 adjustable thumb piston to Choir (toggle: off/on. Not available for the Tromba)
Thumb pistons for Gt-Pd, Sw-Gt
4 toe pistons each to Pedal and Swell (duplicating)
Toe piston for Gt-Pd
Toe pistons for both Swell Tremulants
Toe piston for Choir Tremulant
Great & Pedal combinations coupled
Swell pedals for Swell and Choir
General Crescendo pedal

Illustration 5:30 Methodist Central Hall, Coventry – general view[412]

Illustration 5:31 Methodist Central Hall, Coventry - manuals

[412] Photographs of the organ in Methodist Central Hall by the Author

Illustration 5:32 Methodist Central Hall, Coventry – right-hand jamb

Illustration 5:33 Methodist Central Hall, Coventry – left-hand jamb

Illustration 5:34 Methodist Central Hall, Coventry - toe pistons on right side

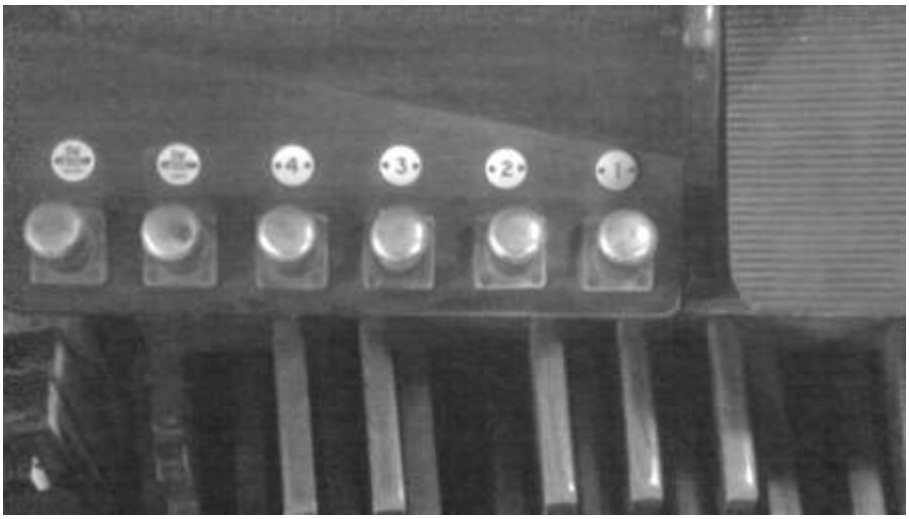


Illustration 5:35 Methodist Central Hall, Coventry - toe pistons on left side

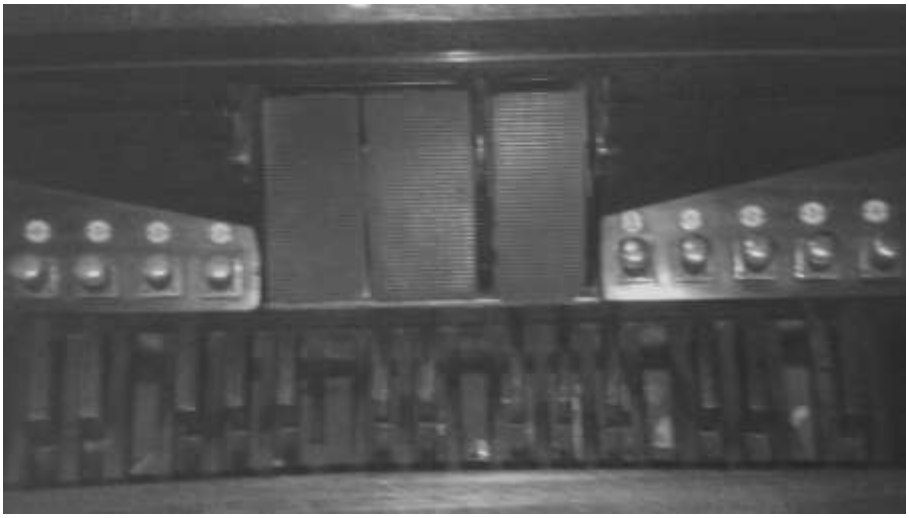


Illustration 5:36 Methodist Central Hall, Coventry – swell pedals
From left to right: Choir, Swell, General Crescendo

Methodist Central Hall, Coventry - Piston settings

Great

1 Wald Flute 8’
2 Small Open Diapason 8’, Principal 4’
3 Small Open Diapason 8’, Principal 4’, Fifteenth 2’
4 Large Open Diapason 8’, Small Open Diapason 8’, Principal 4’, Fifteenth 2’, Dulciana Mixture III

Swell

1 Lieblich Gedact 8’, Echo Gamba 8’
2 Open Diapason 8’, Lieblich Gedact 8’, Geigen Principal 4’
3 Open Diapason 8’, Lieblich Gedact 8’, Geigen Principal 4’, Dulciana Mixture III, Oboe 8’
4 Open Diapason 8’, Lieblich Gedact 8’, Geigen Principal 4’, Dulciana Mixture III, Contra Fagotto 16’, Oboe 8’, Cornopean 8’, Clarion 4’

Pedal

1 Harmonic Bass 32’, Violone 16’, Octave 8’
2 Lieblich Bourdon 16’, Flute Bass 8’, Trombone 16’
3 Harmonic Bass 32’, Bourdon 16’, Lieblich Bourdon 16’, Flute Bass 8’
4 Open Diapason 16’, Violone 16’, Bourdon 16’, Lieblich Bourdon 16’, Octave 8’, Flute Bass 8’

5.7.1.1 Characteristics of the instrument

There is a range of colours on the instrument, though the voicing is not very bright, particularly with the flue choruses, but the reeds are quite fiery; the dynamic range is very wide, from a hushed pianissimo to a reasonably powerful tutti. The Choir stops are gently voiced and do not project very well into the building. The key action is not fully responsive, with repetition slow in fast moving music; the piston settings on the Great and Swell are logical and useful but there is an electrical problem with the Pedal mechanism, and the settings are illogical and can prove to be a challenge in operation. The drawstops are conveniently positioned, allowing for quick registration changes by hand; likewise, the pistons for Great and Swell are well positioned but the reversible pistons are unusually placed to the right of the Great divisional pistons and are consequently of limited use. The swell boxes are connected by mechanical linkage and are heavy to move and not sensitive in operation.

5.7.2 St Peter's Church, Dunchurch, Warwickshire

Date/Builders: 1972 Grant, Degens & Bradbeer

	Pedal			**Brustwerk**	
1	Sub Bass	16	11	Holzgedackt	8
2	Octave	8	12	Spitzgedackt	4
3	Quintade	4	13	Prinzipal	2
4	Fagott	16	14	Quintflote	1⅓
			15	Krummhorn	8
	Great		16	Tremulant	
5	Rohrflote	8			
6	Prinzipal	4			
7	Waldflote	2			
8	Cornet	II			
9	Mixtur	IV			
10	Tremulant				

Console: Attached Stop type **Drawstop** Action **Mechanical** black naturals, white-faced sharps

Couplers
Manual I to Pedal
Manual II to Pedal
Manual II to Manual I

Accessories
The couplers are operated by latch-down pedals
Brustwerk enclosed by doors (hand operated)

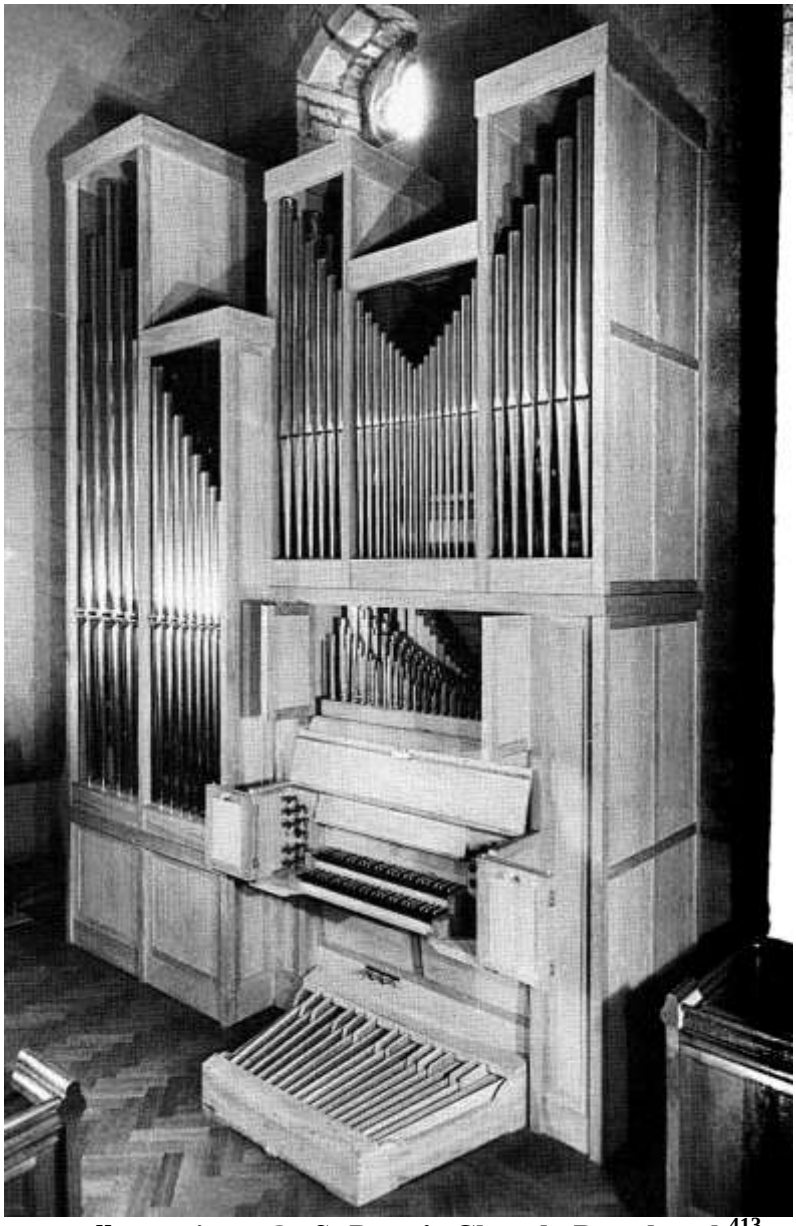


Illustration 5:37 St Peter's Church, Dunchurch[413]

5.7.2.1 Characteristics of the instrument

The organ in St Peter's Church, Dunchurch is a Classical instrument with bright voicing and each stop has its own clear character. The tutti is quite big yet not overpowering in the small building; the dynamic range is quite wide, though without the benefit of a normal swell box it is not possible to achieve a true pianissimo. The

[413] Forsyth-Grant, M (1987) *Twenty-One years of organ building* Oxford Positif Press p170

mechanical key action has a light touch and is very responsive and sensitive, with the pipework speaking closely to the player (especially in the case of the Brustwerk, which is immediately above the player's head); the drawstops are quite well positioned, though they are at right angles to the player, which can slightly slow down the speed of changing registration. The use of hitch down pedals for the couplers is quite advantageous, though by not having the option to operate the couplers by hand this does occasionally create challenges to the player.

5.7.3 Comparison of the two instruments

	Methodist Central Hall, Coventry	St Peter's Church, Dunchurch
Number of manuals	3	2
Number of speaking stops	39	14
Size of pedal division	8	4
Couplers	12	3
Swell box(es)	2	The Brustwerk has hand-operated doors
Registration aids	Pistons and General Crescendo pedal	Couplers operated by hitch down pedals
Action	Electro-pneumatic	Mechanical
Speed of action response	Sluggish	Very quick
Voicing character	Traditional	Classical
Building and acoustic	A large hall with slight reverberation	A small village church with a dry acoustic

5.8 Introduction to the performances

The following performance suggestions were conceived with the assumption that a page-turner also assists with registration changes. The organ in the Methodist Central Hall was built around the same time as the publication of the two pieces by Howells and Whitlock and is an instrument that quite easily lends itself to the music. The organ in Dunchurch, built a few years after the publication of the Leighton, is in complete

contrast to the organ in Methodist Central Hall, both tonally and mechanically, and created different challenges in performing the pieces, but in doing so threw new light on the compositions.

In the suggestions below the stops are referred to by the numbering as detailed in both instruments' specifications. On the organ in the Methodist Central Hall the shorthand for the pistons is the division's 1st letter plus the piston number e.g. G2 = Great piston number 2.

5.8.1 Performance suggestions: Leighton - Methodist Central Hall, Coventry

5.8.1.1 Prelude

Bar	Registration	Comments
1	Prepare: 3,4,6,7 25,27 3,4,6,7 Swell to Great	Start on the Swell with the swell box closed
17	S3	Operate piston after 2nd quaver Left hand moves onto the Great
20	Open swell box half way	Right hand moves onto the Great
21	Add Great to Pedal Add 2	
22	Open swell box fully	
23	Add 29	This addition comes in the middle of a legato line, but since the theme starts in the upper voice at this point the sudden change in dynamic is musically acceptable.
27	Add 41	
32	Add 30	Add over the semiquaver rest
37	Add 1,8 Add 44	Add over the quaver rests
44	Add 40 Add Swell octave	Add between the 1st and 2nd quavers

5.8.1.2 Scherzo

Bar	Registration	Comments
1	Prepare: 14,15 26 4,5,7 41 Choir to Great	Start on the Choir with the Choir box open
23		Open Choir box during the quaver rests. Both hands on the Great from the 2nd beat.
39		Close Choir box
42	Add 3,29 Subtract 15 Add Great to Pedal	
57		Left hand moves onto the Swell from the 3rd quaver
62	Add 27	Left hand moves onto the Great from the 3rd quaver
65	Prepare: Add 34,38,39 Subtract 41	Close Swell box
69	Add Swell to Great	Add over the quaver rests
72	Add Swell to Pedal	Add over the quaver rests
78		Open Swell box
83	Add 41	
88	Reduce to: 14,15 26 (G1) 4,5,7 Choir to Great	Start on Choir (box open)
95		Left hand moves onto the Great
103	Subtract 15	After 1st note. Both hands on Choir

5.8.1.3 Passacaglia

Bar	Registration	Comments
1	Prepare: 34,35,37,38 3,4,6 14,15 25,27,29 Swell to Great Swell to Choir Swell to Pedal	Start on the Swell with the Swell box closed
23		Left hand moves onto the Choir
30		Left hand moves onto the Swell
31	Add Choir to Pedal	

	Add 16	
41		Both hands move onto the Choir
45	Add Great to Pedal	
49		Right hand moves onto the Great after the semiquaver rest. Left hand moves onto the Great two beats later.
60	Add 30	Add over the bar-line
67	Add 30	Add over the bar-line
74	S4	Add after the 1st note. Both hands on the Swell
78	Add 19	
84		Right hand moves to the Swell Left hand remains on the Great
85	Add 8	
105	Subtract 8,19	
118	Subtract 40	Subtract during the rest
130	Add 8,19	Add during the quaver rest
136	S4	Add after 1st quaver
140	Add 1	Add after 1st quaver
142	Add 24	Add during the quaver rest
143	Add 31	Add over comma

5.8.2 Performance suggestions: Leighton - St Peter's Church, Dunchurch

5.8.2.1 Prelude

Bar	Registration	Comments
1	Prepare: 1,2 11,12 5 II to I	Start on Brustwerk. The crescendo and diminuendo markings have to be ignored due to the lack of a swell box.
17		Left hand moves onto the Great
20	Add I to Pedal Add II to Pedal	Right hand moves onto the Great
23	Add 6	This addition comes in the middle of a legato line, but since the theme starts in the upper voice at this point the sudden change in dynamic is musically acceptable.
27	Add 13	
32	Add 7	Add over the semiquaver rest
37	Add 4 Add 9	Add over the quaver rests
44	Add 15	Add between the 1st and 2nd quavers

5.8.2.2 Scherzo

Bar	Registration	Comments
1	Prepare: 11,12 1 5 I to Pedal	Close Brustwerk doors. Start on Brustwerk.
23		Open Brustwerk doors after 1st quaver.
42	Add 7, 15 Subtract 11,12	Play on Great
57		Left hand moves onto the Brustwerk from the 3rd quaver
62	Add 6	Left hand moves onto the Great from the 3rd quaver
65	Prepare: Add 11,12,13,14 Subtract 15	
69	Add II to I	Add after 1st quaver
72	Add II to Pedal	Add after 1st quaver
83	Add 9	On 1st beat
88	Reduce to: 11,12 1 5 I to Pedal II to I	Start on Brustwerk.
95		Left hand moves onto the Great
103	Subtract 12	After 1st note. Both hands on Brustwerk.

5.8.2.3 Passacaglia

Bar	Registration	Comments
1	Prepare: 1 5 11,12 I to Pedal	Start on Brustwerk.
23	Add II to I	Add during crotchet rest. Left hand moves onto the Great
30		Left hand moves onto the Brustwerk
31	Add II to Pedal	
41	Add 13	Add on 1st beat
45	Add 2,6	
49		Right hand moves onto the Great after the semiquaver rest. Left hand moves onto the Great two beats later.
60	Add 7	Add over the bar-line

67	Add 14	Add over the bar-line
74	Add 15	Add after the 1st note. Both hands on the Brustwerk
84	Add 9	Add over the bar-line. Right hand moves to the Brustwerk Left hand remains on the Great
85	Add 4	
105	Subtract 4	
118	Subtract 14,15	Subtract during the rest
130	Add 4	Add during the quaver rest
136	Add 14	Add after 1st quaver
142	Add 8, 15	Add during the quaver rest

5.8.3 Performance suggestions: Howells - Methodist Central Hall, Coventry

Bar	Registration	Comments
1	Prepare: G3 Swell to Great S2 add 39 box closed 14,15,16 Swell to Choir 3,4,7 Great to Pedal Swell to Pedal Choir to Pedal	Start on Great
23	Subtract Great to Pedal	Use toe piston with right foot
23	S4	Use thumb piston
32	S3	
40	Add Great to Pedal	Use toe piston with right foot The Swell now has the Oboe out due to the use of S3 in bar 32 but as the harmony is richer here the extra colour adds further interest
56	S4 G4 Add 2,9	
62	Subtract 2,9	The Pedal stops need to go in before the chromatic line starts.
63	Subtract 24,30	The assistant will need to help here since the hands are fully engaged and the Pedal pistons are too unreliable.
64	S3	The right foot can operate the Swell toe piston here. The Swell box needs to be gradually closed from this point onwards.
65	Subtract 27, 29	The left hand might be able to press G1, if not then the assistant needs to help.
66	S1	

	Subtract Great to Pedal	
67	Subtract 35,16	
68	Add 38	
71	S2	A quick piston move on the semiquaver rest
79	Subtract Swell to Pedal	The assistant will need to help here.
86	Add Swell to Pedal	The assistant will need to help here.
91	Add 16	
92	S3	The Swell box needs to be tightly closed before this stop change
96	Add 33, 42	This is designed to be a 'miniature' Full Swell, leaving room for more stops to be added across the page
100	Add 41	
102	Add 40	
106	S4	
110	G4 Add 2, 8, 23 Great to Pedal	
125	G3 Subtract 8	
133	G4 Add 8	
140	G3 S3 Subtract 8	This is a difficult corner due to a number of changes needed simultaneously. Without a foot operated general piston the compromise is to make the piston changes over the bar-line (139/140) whilst the assistant pushes in 8.
151	Subtract Great to pedal S4	The Swell box needs to be tightly shut here.
167	Subtract 14,15,16 Add 8,19, Choir octave, sub-octave	
171	G4 Add 1,23 Add Swell octave Subtract Choir to Pedal	The Swell box should be closed during the rests
177	Add 31	

5.8.4 Performance suggestions: Howells - St Peter's Church, Dunchurch

Bar	Registration	Comments
1	Prepare: 1,2	

	5,6,7 11,12,13 All couplers	
23	Subtract I to Pedal	Use right foot to operate the coupler just after the note is sounded. No addition to Brustwerk. The lack of a swell box and the bright reed on this division precludes attempting to replicate the traditional Full Swell registration here.
32		No change
40	Add I to Pedal	
56	Add 4,9,14,15	
62	Subtract 4	Pedal reed off during the rests
63	Subtract 15	
64	Subtract 13,14	
65	Subtract 7,9	
66	Subtract 6	
67	Subtract I to Pedal	
68		From bars 68 to 92 no changes, with the Choir passages played on the Great
91	Add 6 Add I to Pedal	
96	Add 13	
106	Add 7, 14	
110	Add 4, 9, 15	
125	Subtract 4	
133	Add 4	
140	Subtract 4, 15 Subtract I to Pedal	A difficult corner. Moving to the Brustwerk gives an effective contrast, with the stop changes just about manageable.
150	Subtract 9	
151	Add I to Pedal	Move to Great
165	Add 4	Add the Pedal reed during the rest
168	Add 8,9, 15	
171	Subtract 8	
177	Add 8	

5.8.5 Performance suggestions: Whitlock - Methodist Central Hall, Coventry

5.8.5.1 Darwall's 148th

Bar	Registration	Comments
1	Prepare: 2,3,4,6 19 25 34,38 (box closed)	Note the use of the Swell octave to achieve the 2ft. effect

	Swell octave Great to Pedal Swell to Pedal Swell to Great *Ensure Gt & Pd combinations are NOT coupled*	
9	Add 9	Adds a little more warmth. Not the Oboe as with the octave coupler this would be too much.
30	S4	Use left hand to press piston
37	G2 S2	Release the dotted minim chord early.
43	Add Swell octave	
47	Subtract 27	
51	Add 27	
58	S4	Use toe piston
59	Add 8	
64	G3	
75	Add 1, Choir to Pedal	
78	Add 23,24,30 Swell octave	Swell octave used to add extra brilliance for the final bars.

5.8.5.2 Song 13

Bar	Registration	Comments
1	Prepare: 10,15 (play line marked Swell on the Choir) 35,39 (play line marked Choir on the Swell) 25,26 (for solo line) 4, Choir to Pedal	This registration attempts to follow as closely as possible Whitlock's direction. The organ does not have a 2⅔ft. stop but the Swell Mixture is gently voiced and has a Tierce rank in it that adds an interesting colour. The Wald Flute on the Great lacks definition and projection so the small Open Diapason is included to add warmth.

5.8.5.3 Deo Gracias

Bar	Registration	Comments
1	Prepare: 34,37,38,39 box closed 24,25,26 Swell to Great	

	14,15,16 2,3,6 Great to Pedal	
7	Add 27	
10	S4	The right hand holds the 1st left hand note of the bar, freeing the left hand to press the Swell piston.
16	Add 29	
23	G2	
26	S2	
30	Subtract Swell to Great	Because of the unusual positioning of the Swell to Great reversible (to the right of the Great divisionals) it is easier for the right hand to take the left hand's note on the 1st beat, leaving the left hand free to push on the coupler on the left hand jamb.
34	Subtract 27	
35	S4	
65	Add 70 Subtract 14,15,16 Add Swell to Great G2	
82	G1 S3	
85	Subtract 70 Add 14,15,16	
102	G2	
114	S4	
117	Add 20 Subtract 14,15,16	
148	G3	
157	G4	
161	Add Choir octave and sub-octave	
162	Add 1,8	
164	Add 23, Swell octave	
167	Add Choir to Great	

5.8.6 Performance suggestions: Whitlock - St Peter's Church, Dunchurch

5.8.6.1 Darwall's 148th

Bar	Registration	Comments
1	Prepare: 1,2 5,8	This piece is treated initially in the manner of an eighteenth-century chorale prelude, with the manuals clearly contrasted. The solo melody is played on a cornet

	11,12 II to pedal	on the Great whilst the other passages are played on 8ft. and 4ft. flutes on the Brustwerk, ignoring any directions to change from Great to Swell. There is no swell box and it is not appropriate to attempt to use the hand-operated doors on the upper manual.
30	Add 13	A change of colour and dynamic is achieved by adding the 2ft.
37	Subtract 13	Reduce to original registration.
56	Add 13, 14	To be added after the left hand's quaver rest.
59	Add 4	The Pedal reed is prepared ready for bar 60.
62	Add 6,9	Preparing a stronger tone for the next entry of the solo line.
71	Add 15	A quick addition just before the 2nd beat where the Pedal leads.
75	Add I to pedal	The player has time to use the foot coupler.
79	Add II to I	This has to be quickly executed on the quaver rest, operated by the right foot. Both hands play on the Great for the final beats.

5.8.6.2 Song 13

Bar	Registration	Comments
1	Prepare: 1, 5, 10 11, 16 II to Pedal	The challenge here is to play a piece conceived for three manuals on a two-manual instrument. The solution is for the assistant to add and subtract one stop for the solo line, which in this case is stop 6. Note the use of Tremulants on both manuals – on this instrument they are adjustable and when set at a slow pace they add gentle warmth to the flutes.
11	Add 6	Add on the quaver rest.
16	Subtract 6	The 1st quaver in the right hand has to be released quickly.
26	Add 6	
30	Subtract 6	
35	Add 6	
40	Subtract 6	
48	Add 6	
53	Subtract 6	

5.8.6.3 Deo Gracias

Bar	Registration	Comments
1	Prepare: 1, 2 5 11, 12, 13, 14	Start on Great

	II to Pedal I to Pedal II to I	
7	Add 6	The change here adheres to the composer's direction
10	Add 15	The Brustwerk's reed adds colour and is quite close to the composer's direction
16	Add 7	Increasing the Great's dynamic but reserving the Mixture for later
23	Subtract 7	
26	Subtract 14,15	
30	Subtract II to I	The coupler is operated by the right foot
34		No change to the Great
40	Add 14,15	Preparing for the hands moving onto the Brustwerk
52	Subtract 12,14,15 Subtract II to Pedal	Preparing for bar 58, with the Choir passage played on the Brustwerk. Note the subtraction of the Pedal coupler
65	Add 12,14,15	
70		Tuba passages played on Brustwerk
71		Not adding II to I – this is to allow the Brustwerk to play the Tuba phrase in bars 78-82
83	Subtract 12,14,16	Preparing for Choir passage on the Brustwerk in bar 87
102	Add II to I	
109	Add II to Pedal	
115	Add 12,14,16	Over the bar-line 114/115
120		Play Tuba (left hand) on Great; right hand on Brustwerk
124		Both hands on Great
139	Add 7	
156	Add 9	Add on last quaver of bar
161	Add 3,4	Tuba (left hand) on Great; right hand on Brustwerk
163	Add 8	Hands as above, with both hands on Great for last chord.

5.9 Summary

This chapter firstly looked at the performing aspects of three contrasting pieces from the period 1945-1970. Secondly, detailed performance directions were suggested, based on preparation for actual performances of the three pieces on two sharply contrasted organs, these two instruments having been deliberately chosen to show the difference in organ designs that could be encountered in the period. Both instruments presented the

player with practical challenges in order to achieve coherent and convincing performances, and both instruments had their own clear strengths.

The traditional organ from Coventry provided many warm colours for the more intimate writing in the Howells and Whitlock, with suitable grandeur being available for the tutti passages; the solo reed made an impressive contribution and contrasted effectively with the other choruses, but this organ was less successful in the contrapuntal writing of Leighton, with much detail obscured, although the powerful climaxes in the Prelude and the Passacaglia were always impressive.

The Classical instrument from Dunchurch allowed the toccata-like sections of the Howells to sparkle but the reflective passages lacked true warmth, and the absence of a swell box was particularly noticeable in the expressive phrases. The Whitlock pieces, with their neo-classical ideas, translated well on to this organ, despite the lack of a powerful tutti, and the instrument's clear voicing resulted in all of the contrapuntal detail of Leighton's piece being projected.

6 Coda

6.1 Introduction

The introduction at the opening of this thesis explained that this research was sparked off by a performance of one piece of organ music written in 1967. This is a period in British musical history with which I have always felt some connection, ever since I came to the organ just by chance in 1969, through the kindness of a distinguished clergyman, one Canon Gordon Guinness, who invited me as a young teenager to try out the organ in Christ Church, Winchester. It was the start of a musical journey that led to my first professional appointment as an organist and choirmaster within two years of first playing the organ and then, subsequently, a long and deeply rewarding musical career encompassing playing, conducting, teaching and examining, always with the organ as a focus.

The questions that arose from my initial curiosity have now been mainly answered but with any research there is always the knowledge that the journey will never finish and that of course is what keeps one's interest alive. The questions are now revisited whilst considering the content of chapters one to five, followed by thoughts about future research that this thesis suggests; finally, at the conclusion, thought is given to the preparation and delivery of the associated recital, where theory meets practice.

6.2 The chapters

The starting point for this project was to discover which pieces had been composed in the period 1945-1970 and the results of this are in Appendix17. I did not have any preconception when starting this trawl as to the number of pieces composed in the period, but nevertheless I was intrigued by the figure of approximately 868

compositions; the question '*Was Leighton's Paean a good example of British organ music in the 1960s and how did it relate to the general repertoire of the organ at the time?'* was also answered when I studied and played through the scores of approximately 25% of the listed pieces. It transpires that Leighton's style was not unique in this period (though one would argue he did possess a unique voice), but that he shared certain characteristics with composers such as Mathias, Ridout, Joubert, Jackson and Wills; it is not possible to say that his music was typical of organ music of the period due to the extraordinary range of styles to be found, from the Edwardian warmth of Lloyd Webber and Rowley to the more advanced techniques of the likes of Sebastian Forbes and Malcolm Williamson.

Reading the literature has proved to be enlightening, particularly the articles in *The Organ,* where the many personalities have helped to paint a clear picture of the time. Their passion and enthusiasm has helped me to reconsider many aspects of the instruments from 1945-1970, appreciating for example the individual beauty of tone colours, ones that later generations used to dismiss - for students in the 1970s encountering the strong views of Ralph Downes this was perhaps inevitable. Large Open Diapasons, Dulcianas, Tubas and the like have had a poor press over the past 45 years, and this original research will certainly help players to be wary of too easily judging and dismissing tonal designs without due investigation.

Chapters 2, 3 and 4 are all related and the research in these three sections was necessary in order to answer the next question *'Was the organ used for this first performance (the instrument in the Royal Festival Hall) a typical example of 1960s British organs?'* The brief answer is that there was an extraordinary variety of organs at the time and that a player needs a proper understanding of them to be able to approach

the performance of the repertoire with confidence. Musical considerations have arisen from these three chapters, including:

- Do we take some of these pieces too fast? A slower response from key actions might mean a slower overall pace.
- Did composers expect in some pieces a sort of blurred haze, resulting from slow moving pneumatic motors?
- Are we nowadays too obsessed with clarity of line?
- Did the composers realistically expect the demands of dynamic and tonal contrasts to be met by the registration controls available at the time?
- When performing music of 1945-1970 is there a problem when making too much of our sometimes limitless number of pistons, levels, reversibles, generals and sequencers?

For chapter 5 the question '*With authenticity in performance ever growing in significance what practical lessons could be learnt by researching into the mid twentieth-century British organ'* helped focus the preparation of the pieces by Howells, Leighton and Whitlock. Drawing on the understanding assimilated in the previous chapters, far more time than usual was spent on learning the music, a luxury that rarely happens with today's frantic lifestyle, but in doing so I discovered far more depth to the music than was expected and hopefully practical solutions to the various musical challenges that were thrown up.

6.3 Potential future research arising from these studies

Research into any topic has to be constrained by self-imposed boundaries in order to keep a final thesis to manageable proportions. When this research project started there were a number of areas and ideas that the initial investigation pointed to, but reluctantly it was just not feasible to pursue them all. Each of the topics mentioned below have rich potential, and serious consideration should be given to conducting future research into them.

6.3.1 The organ as an ensemble instrument in the twentieth century

The organ cannot claim to enjoy the wealth of instrumental ensemble material that is available to other instruments such as the piano or violin, particularly in the period 1945-1970, but nevertheless there are works that combine the unique qualities of the organ with the orchestra and other instrumental groupings, with particular renewed interest in bringing the organ into the secular world. The researcher would need to extend way beyond the boundaries of 1945-1970 to focus on composers writing in many different styles, including Percy Whitlock (Symphony in G minor for organ and orchestra) Kenneth Leighton (Concerto for Organ, Timpani and Strings op.58), Arthur Butterworth (Concerto for organ, string orchestra and percussion, Op. 33), Malcolm Arnold (Concerto for Organ and Orchestra Op. 47), Bob Chilcott (Organ Dances for Organ, string orchestra & percussion), Michael Berkeley (Organ concerto), William Mathias (Organ concerto) and Richard Popplewell (two Organ concertos).

6.3.2 The organ as an accompanying instrument for choral music

This is a very large topic, with music written for not just the Anglican Church but also for other denominations (e.g. Catholic, Methodist, Free Church etc.). Major composers such as Vaughan Williams, Britten, Tippett and Walton contributed significant choral repertoire requiring the organ, with many other British composers working in the choral field. Different approaches to research could be taken - an investigation into how composers handled the organ in its relationship to voices would be of much value, and possibly, as a separate investigation, how composers reacted to the rise of the neo-classical organ, and how they adapted to its challenges.

6.3.3 The organ as a liturgical instrument

In addition to choral music the organ is inevitably deeply entwined in the liturgy of the church, both for accompanying congregational singing and also for adding appropriate music to enhance the worship at various points in a service, including the performance of voluntaries. Research could well focus on the tension that sometimes exists between the liturgical needs of the church and players' musical needs for solo repertoire.

6.3.4 Composers for the organ 1945-1970

There is still a considerable amount of organ music waiting to be rediscovered. Certain names from this period are currently well-known in the organ world, such as Howells, Lloyd Webber and Thiman, but there are others, such as Kennaway, Lang, Milner, Rowley and Waters, who do not have at present a major profile but nevertheless were considered to be of some worth by major publishers such as Novello and OUP.

Tastes in music change all the time and there has been a fresh reappraisal of composers such as Lloyd Webber, whose music has recently been championed by the publisher Kevin Mayhew, who issued a centenary edition in 2014 of some of his music.

6.3.5 Consultants/Advisors/Writers/Performers

Throughout this thesis reference has been made to articles and books published in the period 1945-1970 with some written by professional organists (e.g. Downes, Jackson and Whitlock) but also written by the many amateur organ enthusiasts who displayed great passion for the instrument (e.g. Dixon, Clutton and Whitworth). Their opinions were widely disseminated through journals such as *The Organ*, *The Musical Times* and *Musical Opinion,* and it was initially planned to extend the literature review to include more about the key personalities of the period 1945-1970, but time and space did not permit this. Some of these amateurs became organ advisors, exerting considerable influence over players and builders and there is much to learn from them.

6.4 The associated recital

Integral to this thesis is the recital that the regulations for the Performance Practice PhD require. The programme for the recital naturally includes *Prelude, Scherzo and Passacaglia* by Kenneth Leighton, *Paean* by Herbert Howells and the complete set of *Six Hymn-Preludes* by Percy Whitlock; other styles are represented by William Lloyd Webber (a traditionalist) and Malcolm Williamson (a modernist and yet, perhaps unusually, a composer who still managed to connect with his audience).

A comment is needed regarding the choice of instrument for the recital. I had intended initially to use the organ in Rugby School Chapel, a superb, if slightly

idiosyncratic instrument, built in 2001 by Kenneth Jones. It is a four-manual organ of considerable scale, including two full-length 32ft. stops; three of the manuals and much of the pedal division have mechanical action and the very comprehensive registration system includes a sequencer. The stop list allows for much versatility, although instead of a Tuba stop it has a battery of thinly-scaled en chamade reeds; much of the voicing is on the bright side, though there is some warmth to be found. However, as a result of my research, I felt that a different organ should be used, one that was more appropriate to the music being performed.

The organ to be used is in Rugby Parish Church, and it is a typical example of the period 1945-1970. Originally built in 1915 by Forster and Andrews, it was rebuilt in 1963 by HNB when foundation stops on the Choir were removed in order to add on a few mutations. The voicing of the whole organ is generally sound, though not fully consistent, and both the console and action are quite reliable. It is a three-manual instrument, it has quite substantial registration aids, including general pistons, with its fifty stops having the requisite flexibility to do justice to the chosen programme and I hope that the insight gained from this research will help me to project the true character of each piece.

These final words by the late Peter le Huray seem to be very apt:

> Humility must be a vital ingredient of the modem performer's equipment: the humility to read, to analyse and to listen, and the humility to modify accepted assumptions where necessary. [414]

[414] Le Huray, P. (1990) *Authenticity in performance : eighteenth-century case studies* Cambridge: Cambridge University Press p4

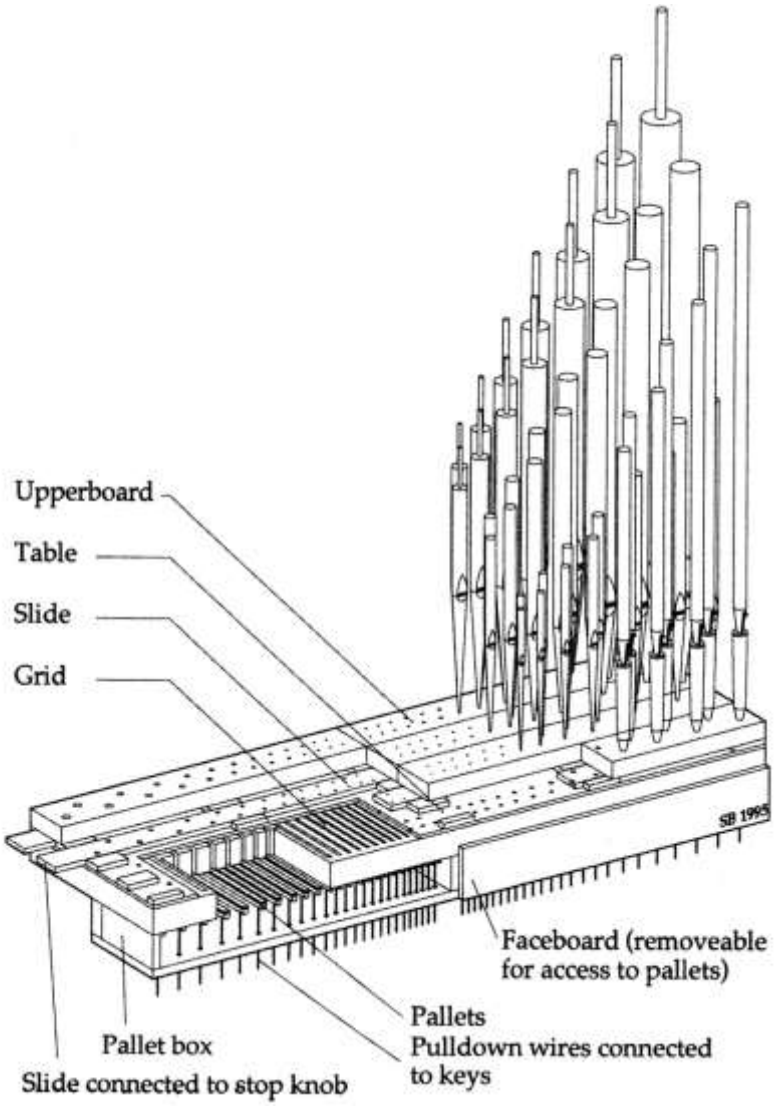
Appendices

Appendix 1 – The design of a pipe organ

The pipe organ is, first and foremost, a wind instrument, with the sound produced by vibrating columns of air in pipes. However, unlike other wind instruments (e.g. the recorder, flute or clarinet) each pitch of each stop on the organ is produced by its own designated pipe; even the most rudimentary instrument of one manual and one stop will have approximately 56 pipes, whilst a large instrument, such as the organ in Liverpool Anglican Cathedral, has well over 10,000 pipes.

An organ has four basic components:

1. A mechanism to raise wind and the means to store the wind under constant pressure. Nowadays an electric blower is the normal means of powering a fan to raise the wind but prior to the discovery and harnessing of electricity most organs would have had mechanisms that were hand blown.
2. A soundboard upon which stand the pipes. The soundboard has hinged valves, known as pallets, and when these are opened wind is admitted to the pipes:

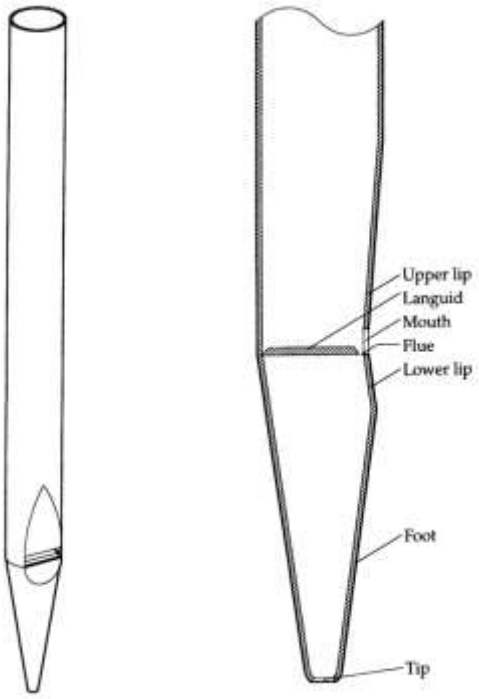


Soundboard[415]

3. Keyboards (both for hands and feet) that are linked to the pallets on the soundboard.
4. Pipes. Each set of pipes (or 'ranks') has its own tonal characteristic and will be found at a variety of pitches.

The pipes can be made out of wood or metal and there are two distinct family types to be found, namely flue pipes and reed pipes. In flue pipes the sound is produced by air moving through the foot and impinging on an upper lip, not dissimilar to a recorder:

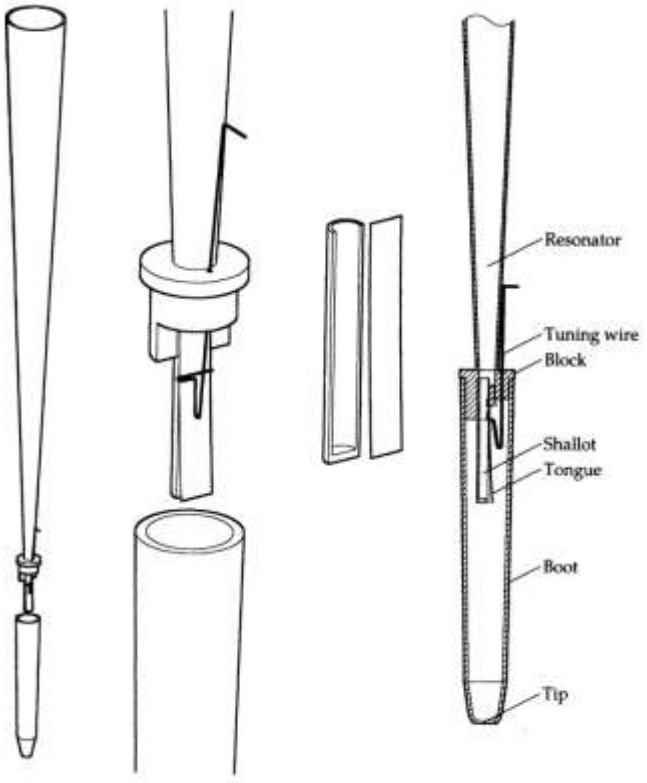
[415] Bicknell op.cit. p4



Flue pipe[416]

Reed pipes have a vibrating brass tongue, generating the sound which is then amplified by a resonator:

[416] Ibid. p6



Reed pipe[417]

In addition to the names of the stops there will always be found pitch lengths such as 8 foot (also written as 8 ft. or 8'). The pitch length refers to the length of the speaking pitch of the longest pipe in a particular rank, with 8ft. ranks being unison pitch. Therefore a stop of 4ft. pitch will sound an octave above unison. This method of describing pitch is to be found throughout most of the world, notwithstanding any bureaucratic directives regarding the use of metric measurements.

[417] Ibid. p9

Appendix 2 – Piston settings: St Bees Priory, Cumbria[418]

Specification of organ
Willis 1899

GREAT ORGAN

		ft.
Double Open Diapason	Metal	16
Stopped Diapason	Wood	8
Hohl Flöte (open throughout) ...	Wood	8
Open Diapason ...	Metal	8
Wald Flöte (open throughout) ...	Wood	4
Principal	Metal	4
Twelfth	,,	2⅔
Fifteenth	,,	2
Cornet, 17, 19, 22 ...	,,	III
Tromba (harmonic trebles)		8
Clarion (harmonic trebles)		4

Solo Suboctave to Great
Solo to Great
Swell to Great
Great Pistons to Combination Pedals
Five Pistons
Reversible Pedal to Solo to Great
Reversible Pedal to Swell to Great

PEDAL ORGAN

		ft.
Double Open Bass (to G, 21⅓-ft. (18 from Open Bass)		32
Sub-Bass Stopped	Wood	16
Open Diapason (from Great)	Metal	16
Open Bass ...	Wood	16
Flute (18 from Sub-Bass)	Wood	8
Octave (18 from Open Bass)	Wood	8
Ophicleide ...	Metal	16
Double Ophicleide (18 from Ophicleide) ...		32

Solo to Pedal
Great to Pedal
Swell to Pedal
Six Combination Pedals
Three Pistons to Pedal Couplers

SWELL ORGAN

		ft.
Open Diapason ...	Metal	8
Gemshorn	,,	4
Flageolet	,,	2
Mixture 12, 19, 22 ...	,,	III
Vox Humana ...	,,	8
Tremulant		
Oboe		8
Contra Posaune		16
Cornopean		8
Clarion		4

Lever Swell Pedal
Five Pistons (one for Pedal Solo)

COMBINATION COUPLERS

Pedal and Accomp. to Solo Pistons
Pedal to Great Pistons
Pedal to Swell Pistons
Swell Pistons to Combination Pedals

SOLO ORGAN (lower Manual)

ENCLOSED

		ft.
Double Salicional (12 Wood)	Metal	16
Viol D'Amour ...	,,	8
Voix Célestes (Ten. C)	,,	8
Claribel Flute (Stopped Bass)	Wood	8
Concert Flute ...	Metal	4
Harmonic Piccolo ...	,,	2
Orchestral Clarinet	,,	8

Tremulant
Lever Swell Pedal

UNENCLOSED

Tuba Mirabilis (Harmonic)	Metal	8

Octave
Swell to Solo
Five Pistons

[418] Clutton and Dixon (1950) op.cit.pp164-167

Piston settings as used in 1950

Pedal Combination Pedals

1. (Pedal solo) Open Wood 32-ft. and 8-ft.; Reed 16-ft.
2. Sub-Bass 16-ft. Flute 8-ft.
3. Open Wood 16-ft.
4. Open Wood 32-ft. Open Metal 16-ft.
5. Open Wood 32-ft. and 16-ft.
6. (Full Pedal) Open Wood 32-ft., 16-ft. and 8-ft. Reed 16-ft. and 32-ft.

Choir Solo Organ Pistons

1. Salicional 16-ft. Flutes 8-ft., 4-ft. and 2-ft.
2. Flutes 8-ft. and 4-ft.
3. Clarinet 8-ft.
4. Salicional 16-ft., Viole 8-ft., and Octave Coupler.
5. Tuba.

Great Organ Pistons

1. Stopped Diapason 8-ft. and Wald Flöte 4-ft.
2. Open Diapason 8-ft. and Principal 4-ft.
3. Diapasons 16-ft., 8-ft., 4-ft., 2⅔-ft. and 2-ft.
4. Diapasons 16-ft., 8-ft., 4-ft., 2⅔-ft., 2-ft. and III.
5. FULL GREAT—Diapasons 16-ft., 8-ft., 2⅔-ft., 2-ft. and III, Reeds 8-ft. and 4-ft., withdraws Swell to Great.

Swell Organ Pistons

1. Diapasons 8-ft. and 4-ft.
2. Diapasons 8-ft., 4-ft., 2-ft. and III.
3. Cornopean 8-ft.
4. Full Swell—diapasons 2-ft. and III, Reeds 16-ft., 8-ft. and 4-ft.
5. Pedal Solo—Contra Posaune 16-ft. and Swell to Pedal.

Appendix 3 – Piston settings: Temple Church, London[419]

Piston settings as used by Sir George Thalben-Ball in 1978

Great		*(Piston settings: see note)*								
Double Geigen	16									
Bourdon	16									
Large Open Diapason	8									
Small Open Diapason	8					3.	4.	5.	6.	7.	8.
Geigen	8				2.	3.	4.	5.	6.	7.	8.
Hohl Flute	8								6.	7.	8.
Stop'd Diapason	8			1.	2.	3.	4.	5.	6.	7.	8.
Octave	4						4.	5.	6.	7.	8.
Wald Flute	4										
Octave Quint	2⅔									7.	8.
Super Octave	2					5.	6.	7.	8.		
Harmonics 18. 20. 22. 23							6.	7.	8.		
*Tromba (harmonic)	8								8.		
*Octave Tromba (harmonic)	4								8.		
(*in Solo box*)											
Choir (enclosed)											
Contra Dulciana	16						6.	7.			
Claribel Flute	8	1.	2.	3.	4.			7.			
Lieblich Gedeckt	8			3.	4.				8.		
Dulciana	8	1.			4.						
Salicet	4				4.						
Flauto Traverso	4		2.	3.		5.	6.				
Harmonic Piccolo	2			3.				7.			
Dulciana Mixture 15. 19. 22						(5.)	6.				
Cor Anglais	16					5.					
Clarinet	8								8.		
Solo (enclosed)											
Contra Viola	16					5.					
Viole d'Orchestre	8	1.									
Viole Céleste	8	1.									
Harmonic Flute	8	1.	2.	3.	4.						
Concert Flute	4			3.	4.	5.					
Orchestral Hautboy	8										
Double Orchestral Trumpet (harmonic trebles)	16							7.			
Horn (harmonic)	8						6.				
**Tuba (harmonic)	8								8.		
Octave					4.			7.			
Sub Octave											
Unison Off								7.			
Swell (enclosed)											
Quintatön	16										
Open Diapason	8			3.	4.	5.	6.	7.	8.		
Stop'd Diapason	8		2.	3.	4.	5.	6.	7.	8.		
Echo Salicional	8	1.	2.	3.							
Vox Angelica	8	1.									
Principal	4				4.	5.	6.	7.	8.		
Fifteenth	2					5.	6.	7.	8.		

[419] Rennert op.cit. pp159-161

Mixture 12. 19. 22. 26. 29							6.		8.
Oboe	8							7.	8.
Double Trumpet	16							7.	8.
Trumpet (harmonic trebles)	8								8.
Clarion (harmonic trebles)	4								8.
Octave		1.	2.					7.	
Pedal									
Double Open Wood	32						6.	7.	8.
Sub Bourdon	32					5.	6.	7.	8.
Open Wood	16					5.	6.	7.	8.
Open Diapason	16								
Geigen	16				4.	5.	6.	7.	8.
Bourdon	16	1.	2.	3.	4.	5.	6.	7.	8.
Violone	16			3.					
Dulciana	16	1.	2.	3.					
Octave Wood	8								
Flute	8				4.	5.	6.	7.	8.
Octave Flute	4								
Double Ophicleide	32								8.
**Ophicleide	16							7.	8.
Orchestral Trumpet	16							7.	8.
Bassoon	16								
**Posaune	8							7.	8.

(***in separate box*)

Appendix 4 – Piston settings: Westminster Cathedral, London[420]

Piston settings as used in 1932 (on the completion of the organ)

	Pedal							
1	Double Open Bass	32						6
2	Open Bass	16					5	
3	Open Diapason	16			3	4	5	6
4	Contra Bass	16						
5	Sub Bass	16	1	2	3	4	5	
6	Violon	16						
7	Dulciana	16	1	2	3			
8	Octave	8			3	4	5	6
9	Principal	8						
10	Flute	8		2	3	4	5	
11	Super Octave	4				4	5	6
12	Seventeenth	3⅕						6
13	Nineteenth	2⅔						6
14	Twenty Second	2						6
15	Contra Trombone	32						6
16	Trombone	16						6
17	Octave Trombone	8						6
18	Bombarde	16						
	Great							
19	Double Open Diapason	16						6
20	Bourdon	16						
21	Open Diapason No. 1	8						
22	Open Diapason No. 2	8			3	4	5	6
23	Open Diapason No. 3	8		2	3	4	5	
24	Flute Harmonique	8	1	2				
25	Quint	5⅓						
26	Octave	4						
27	Principal	4			3	4	5	6
28	Flute Couverte	4						
29	Tenth	3⅕						
30	Octave Quint	2⅔						
31	Twelfth	2⅔				4	5	6
32	Super Octave	2				4	5	6
33	Fifteenth	2						
34	Grand Chorus	V					5	6
35	Double Trumpet	16						6
36	Trumpet	8						6
37	Clarion	4						6

[420] Information obtained from inspection of the original setter boards by the Author.

	Swell							
38	Violon	16						
39	Geigen Diapason	8			3	4	5	6
40	Rohr Flute	8	1	2				
41	Echo Viole	8	1	2				
42	Violes Celestes	8						
43	Octave Geigen	4		2	3	4	5	6
44	Suabe Flute	4		2				
45	Twelfth	2⅔					5	6
46	Fifteenth	2			3	4	5	6
47	Harmonics	III						6
48	Vox Humana	8						
49	Oboe	8				4		
50	Tremulant							
51	Waldhorn	16						6
52	Trompette	8					5	6
53	Clarion	4						6
	Choir							
54	Contra Dulciana	16						
55	Open Diapason	8			3	4	5	
56	Viola	8						
57	Cor de Nuit	8	1	2		4	5	
58	Cor de Nuit Celestes	8						
59	Sylvestrina	8						
60	Gemshorn	4		2	3			
61	Nason Flute	4						
62	Nazard	2⅔				4	5	
63	Octavin	2			3		5	
64	Tierce	1⅗					5	
65	Trumpet	8					5	
66	Tremulant							
	Solo							
67	Quintaton	16					5	
68	Violoncello	8		2				
69	Cello Celestes	8		2				
70	Tibia	8	1				5	
71	Salicional	8						
72	Unda Maris	8						
73	Concert Flute	4						
74	Piccolo Harmonique	2						
75	Cor Anglais	16						
76	Corno di Bassetto	8				4		
77	Orchestral Oboe	8			3			
78	Tremulant							
79	French Horn	8						
80	Orchestral Trumpet	8						
81	Tuba Magna	8						6
	Octave						5	
	Unison off						5	
	Sub Octave							

Appendix 5 – The solo organ works of Herbert Howells

Title	Date
Organ Sonata No 1 in C	1911
Three Psalm Preludes Set 1	1916
Two Slow Airs for Organ	1928
Sonata for Organ (No 2)	1933
Three Psalm Preludes Set 2	1939
Intrata no 2	1942
Six Pieces	1940/45
Siciliano for a high ceremony	1952
Prelude De Profundis	1958
Rhapsody IV	1958
Dalby's Fancy and Dalby's Toccata	1959
A Flourish	1968
Flourish for a Bidding	1969
Partita	1971
Three Pieces for Organ	1977

Appendix 6 – The solo organ works of Percy Whitlock

Title	Date
Five Short Pieces	1929
Two Fantasie Chorales	1933
Four Extemporisations	1933
Seven Sketches on Verses from the Psalms	1934
Sonata in C minor	1936
Plymouth Suite	1937
Six Hymn-Preludes	1945
Three Reflections: Three Quiet Pieces	1945

Appendix 7 – The solo organ works of Kenneth Leighton

Title	Date
Prelude, Scherzo and Passacaglia op.41	1963
Elegy	1965
Fanfare	1966
Paean	1966
Et Resurrexit op.59	1966
Festival Fanfare	1968
Improvisation (In Memoriam Maurice de Sausmarez)	1969
Choral Prelude on Rockingham	1975
Six Fantasies on Hymn Tunes op.72	1975
Martyrs: (Dialogues on a Scottish Psalm-tune: organ duet) op.73	1976
Ode	1977
Missa de Gloria op.82	1980
Veni Redemptor op.93	1985
Veni Creator Spiritus	1987

Appendix 8 – The organ of Norwich Cathedral

Date/Builder: 1938-42 Wm Hill & Son and Norman & Beard Ltd

Pedal	
Double Open Wood	32
Open Wood	16
Open Wood Minor	16
Open Diapason	16
Open Diapason Minor	16
Violone	16
Contra Viole	16
Bourdon	16
Lieblich Bourdon	16
Dulciana	16
Quint	10⅔
Octave Wood	8
Principal	8
'Cello	8
Bass Flute	8
Dolce	8
Twelfth	5⅓
Superoctave	4
Fifteenth	4
Octave Flute	4
Harmonics	II
Bass Trombone	32
Ophicleide	16
Trombone	16
Contra Fagotto	16
Schalmei	16
Clarion	8
Octave Clarion	4

Choir	
Quintaten	16
Double Dulciana	16
Open Diapason	8
Chimney Flute	8
Bell Gamba	8
Principal	4
Nason Flute	4
Octave Quint	2⅔
Superoctave	2
Tierce	1⅗

Great	
Lieblich Bourdon	32
Double Open Diapason	16
Open Diapason, Large	8
Open Diapason, Medium	8
Quint	5⅓
Octave	4
Twelfth	2⅔
Fifteenth	2
Mixture	IV
Trombone	16
Trumpet	8
Clarion	4
Lieblich Bourdon	16
Dulciana	16
Open Diapason	8
Geigen Diapason	8
Hohl Flote	8
Geigen Principal	4
Stopped Flute	4
Fifteenth	2
Harmonics	V

Swell	
Contra Geigen	16
Bourdon	16
Open Diapason	8
Geigen Diapason	8
Rohr Gedackt	8
Salicional	8
Voix Celeste	8
Principal	4
Lieblich Flote	4
Twelfth	2⅔
Fifteenth	2
Mixture	V
Mixture	IV
Contra Fagotto	16
Horn	8
Trumpet	8
Oboe	8

Harmonics	IV
Violoncello	8
Dolce	8
Cor de Nuit	8
Unda Maris	8
Gemshorn	4
Nazard	2⅔
Flageolet	2
Schalmei	16
Trumpet	8
Great Trombone	16
Great Tromba	8
Great Clarion	4

Clarion	4
Tremulant	
Solo	
Contra Viole	16
Harmonic Claribel	8
Viol d'Orchestre	8
Viole Celeste	8
Flauto Traverso	4
Octave Viole	4
Cor Anglais	16
Orchestral Oboe	8
Corno di Bassetto	8
Vox Humana	8
Tremulant	
Orchestral Horn	8
Orchestral Trumpet	16
Orchestral Trumpet	8
Orchestral Trumpet	4
Tuba Mirabilis	8

Couplers

Swell to Pedal
Swell to Great
Swell to Choir
Swell octave
Swell suboctave
Swell unison off
Choir to Great
Choir to Pedal
Great to Pedal
Solo to Pedal
Solo to Great
Choir to Swell
Solo to Swell
Choir Swell Octave
Choir Swell Sub Octave
Choir Swell Unison Off
Solo to Choir
Swell to Solo

Accessories

8 toe pistons to Pedal organ
8 thumb pistons to Pedal organ (duplicating toe pistons)
10 thumb pistons Great, 10 Swell, 10 Solo, 10 Choir
1 knob disconnecting pedal second touch on manual pistons
all combinations set at miniature switchboard by the console
Great pistons to Pedal pistons
thumb piston to each manual to cancel all the stops on that manual
octave coupler cancel thumb piston
general cancel thumb piston
"Doubles-off" by rocking tablet / Pedal solo;
reversible thumb pistons gt-pd, sw-pd, sw-gt, so-pd, ch-pd, ch-gt, so-gt,
transfer couplers by rocking tablets/transfer Positif to swell/transfer Choir-Swell to Great
transfer Great secondary to Swell/transfer Great secondary to Choir by rocking tablet
3 balanced swell pedals (Choir, Swell, Solo)

Appendix 9 – The organ of Gloucester Cathedral

Date/Builder: 1847-1910 Willis (various additions)

	Pedal	
1	Open Diapason	16
2	Bourdon	16
3	Octave	8
4	Ophicleide	16
	Choir	
5	Contra Dulciana	16
6	Claribel Flute	8
7	Dulciana	8
8	Gamba	8
9	Flute	4
10	Piccolo	2
	Great	
11	Double Diapason	16
12	Open Diapason	8
13	Open Diapason	8
14	Claribel Flute	4
15	Principal	4
16	Harmonic Flute	4
17	Twelfth	2⅔
18	Fifteenth	2
19	Mixture	III
20	Trombone	16
21	Trumpet	8
22	Clarion	4
	Swell	
23	Double Diapason	16
24	Open Diapason	8
25	Lieblich Gedact	8
26	Salicional	8
27	Vox Angelica	8
28	Gemshorn	4
29	Fifteenth	2
30	Mixture	III
31	Contra Posaune	16
32	Cornopean	8
33	Hautboy	8
34	Vox Humana	8
35	Clarion	4
	Solo	
36	Gamba	8
37	Orchestral Oboe	8
38	Clarinet	8
39	Tuba	8

Couplers
Swell to Pedal
Swell to Great
Choir to Great
Choir to Pedal
Great to Pedal
Solo to Pedal
Solo to Great

Appendix 10 – The organ of Aylburton Church, Gloucestershire

Date/Builder: Unknown

	Manual	
1	Open Diapason	8
2	Keraulophon	8
3	Lieblich Gedacht	8
4	Stop Diapason Bass	8
5	Principal	4
6	Wald Flute	4
7	Fifteenth	2

Pedal

No stops. 20 keys

Pedalboard: Small flat parallel

Accessories:
Permanent manual to pedal coupler

Appendix 11 – The organ of Salisbury Cathedral

Date/Builder: 1876 Henry Willis

	Pedal	
1	Double Diapason	32
2	Open Diapason	16
3	Open Diapason	16
4	Violone	16
5	Bourdon	16
6	Octave	8
7	Flute	8
8	Mixture	
9	Contra Posaune	32
10	Ophicleide	16
11	Clarion	8
10	Piccolo	2
	Great	
12	Double Diapason	16
13	Open Diapason	8
14	Open Diapason	8
15	Stopped Diapason	8
16	Claribel Flute	8
17	Principal	4
18	Flûte Harmonique	4
19	Piccolo	2
20	Twelfth	2⅔
21	Fifteenth	2
22	Mixture	
23	Double Trumpet	16
24	Trumpet	8

Couplers

Swell to Pedal
Swell to Great
Swell to Choir
Swell octave to Great
Swell suboctave to Great
Choir to Great
Choir to Pedal
Great to Pedal
Solo to Pedal
Accessories
4 thumb pistons to each manual
Great pistons to Pedal compositions

	Swell	
25	Contra Gamba	16
26	Open Diapason	8
27	Lieblich Gedact	8
28	Viola da Gamba	8
29	Vox Angelica	8
30	Octave	4
31	Flûte Harmonique	4
32	Super Octave	2
33	Mixture	
34	Contra Fagotto	16
35	Cornopean	8
36	Hautboy	8
37	Vox Humana	8
38	Clarion	4
	Choir	
39	Lieblich Gedact	16
40	Lieblich Gedact	8
41	Salicional	8
42	Flûte Harmonique	8
43	Lieblich Gedact	4
44	Gemshorn	4
45	Flûte Harmonique	4
46	Flageolet	2
47	Corno di Bassetto	8
48	Cor Anglais	8
	Solo	
49	Flûte Harmonique	8
50	Flûte Harmonique	4
51	Orchestral Oboe	8
52	Corno di Bassetto	8
53	Tuba	8
54	Clarion	4

Appendix 12 – The organ of St John's College Cambridge

Date/Builder: 1902 Norman & Beard

	Pedal	
1	Great Sub Bass	32
2	Great Bass	16
3	Violon	16
4	Double Dulciana	16
5	Lieblich Bourdon	16
6	Flute Bass	8
7	Principal	8
8	Fifteenth	4
9	Mixture	III
10	Grand Trombone	16
11	Trumpet	8

	Choir	
12	Double Dulciana	16
13	Open Diapason	8
14	Dulciana	8
15	Stopped Diapason	8
16	Viol di Gamba	8
17	Suabe Flute	4
18	Gedact Flute	4
19	Principal	4
20	Flageolet	2
21	Cremona	8

Couplers

Swell to Pedal
Swell to Great
Swell to Choir
Choir to Great
Choir to Pedal
Great to Pedal
Great Reeds to Choir

Accessories
11 composition pedals

	Great	
22	Double Open Diapason	16
23	Open Diapason 1	8
24	Open Diapason 2	8
25	Open Diapason 3	8
26	Stopped Diapason	8
27	Hohl Flute	8
28	Quint	6
29	Harmonic Flute	4
30	Gemshorn	4
31	Principal	4
32	Twelfth	2⅔
33	Fifteenth	2
34	Mixture	III
35	Sharp Mixture	IV
36	Posaune	8
37	Clarion	4

	Swell	
38	Lieblich Gedact	16
39	Open Diapason	8
40	Stopped Diapason	8
41	Pierced Gamba	8
42	Echo Dulciana	8
43	Vox Angelica	8
44	Flute	4
45	Principal	4
46	Fifteenth	2
47	Sesquialtra	IV
48	Double Trumpet	16
49	Horn	8
50	Hautboy	8
51	Clarion	4
52	Tremulant	

Appendix 13 – The organ of Rochester Cathedral

Date/Builder: 1935 Walker

	Pedal	
1	Sub Bass	32
2	Open Diapason	16
3	Open Diapason	16
4	Violone	16
5	Bourdon	16
6	Quint	10⅔
7	Octave	8
8	Flute	8
9	Trombone	16
10	Fagotto	16

	Choir/Solo	
11	Open Diapason	8
12	Dulciana	8
13	Stopped Diapason	8
14	Dulcet	4
15	Flute	4
16	Piccolo	2
17	Clarinet	8
18	Tuba	8

	Great	
19	Double Open Diapason	16
20	Large Open Diapason	8
21	Medium Open Diapason	8
22	Small Open Diapason	8
23	Gamba	8
24	Wald Flute	8
25	Stopped Diapason	8
26	Principal	4
27	Twelfth	2⅔
28	Fifteenth	2
29	Mixture	III
30	Tromba	8

	Swell	
31	Double Diapason	16
32	Open Diapason	8
33	Stopped Diapason	8
34	Echo Gamba	8
35	Voix Celeste	8
36	Principal	4
37	Fifteenth	2
38	Cornet	III
39	Contra Fagotto	16
40	Trumpet	8
41	Oboe	8

Accessories
4 thumb pistons each to Great and Swell
4, 4 composition pedals
Rocking pedal

Couplers

Swell to Pedal
Swell to Great
Swell to Choir
Choir to Great
Choir to Pedal
Great to Pedal

Appendix 14 – The organ of St Stephen's Church Bournemouth

Date/Builder: 1915 Hill

	Pedal	
1	Open Diapason	16
2	Violone	16
3	Bourdon	16
4	Bass Flute	8
5	Trombone	16

	Great	
6	Double Diapason	16
7	Open Diapason I	8
8	Open Diapason II	8
9	Hohl Flute	8
10	Dulciana	8
11	Principal	4
12	Harmonic Flute	4
13	Fifteenth	2
14	Mixture	IV
15	Posaune	8
16	Clarion	4

Couplers

Swell to Pedal
Swell to Great
Swell to Choir
Swell octave
Swell suboctave
Swell unison off
Choir to Great
Choir to Pedal
Great to Pedal
Pedal Octave

Accessories
4 composition pedals each to Great and Swell
2 hitch down expression pedals

	Swell	
17	Bourdon	16
18	Open Diapason	8
19	Stopped Diapason	8
20	Dulciana	8
21	Salicional	8
22	Voix Celeste	8
23	Principal	4
24	Wald Flute	4
25	Mixture	II
26	Double Trumpet	16
27	Cornopean	8
28	Oboe	8
29	Vox Humana	8
30	Orchestral Oboe	8
31	Clarion	4
32	Tremulant	

	Choir	
33	Lieblich Bourdon	16
34	Open Diapason	8
35	Viola	8
36	Gamba	8
37	Lieblich Gedact	8
38	Suabe Flute	4
39	Harmonic Gemshorn	2
40	Clarinet	8
41	Tuba	8

Appendix 15 – The organ of the Pavilion, Bournemouth

Date/Builder: 1934 John Compton

	Pedal			**Great**	
1	Contra Tibia	32	45	Double Open Diapason	16
2	Baryphone	32	46	Violone	16
3	Diaphone	16	47	Bourdon	16
4	Violone	16	48	Diaphonic Diapason	8
5	Tibia	16	49	Open Diapason	8
6	Bourdon	16	50	Violoncello	8
7	Baryphone	16	51	Salicional	8
8	Octave	8	52	Harmonic Flute	8
9	Tibia	8	53	Stopped Diapason	8
10	Bass Flute	8	54	Quint	5⅓
11	Geigen	8	55	Octave	4
12	Viol	4	56	Viola	4
13	Tibia	4	57	Harmonic Flute	4
14	Octave Flute	4	58	Stopped Flute	4
15	Plein Jeu	VIII	59	Octave Quint	2⅔
16	Contra Bombarde	32	60	Twelfth	2⅔
17	Bombarde	16	61	Superoctave	2
18	Trombone	16	62	Fifteenth	2
19	Fagotto	16	63	Flautino	2
20	Bombarde	8	64	Mixture	IV
21	Fagotto	8	65	Plein Jeu	IX
22	Horn	4	66	Double Horn	16
			67	Bombarde	8
	Choir		68	Tuba Horn	8
23	Violone	16	69	Octave Bombarde	4
24	Violes Celestes	16	70	Octave Horn	4
25	Contra Salicional	16			
26	Bourdon	16		**Swell**	
27	Open Diapason	8	71	Contra Viole	16
28	Violoncello	8	72	Open Diapason	8
29	Salicional	8	73	Viole	8
30	Celestes	8	74	Strings	8
31	Stopped Diapason	8	75	Tibia	8
32	Viola	4	76	Concert Flute	8
33	Celestina	4	77	Octave	4
34	Salicet	4	78	Violin	4
35	Stopped Flute	4	79	Concert Flute	4
36	Stopped Twelfth		80	Viole Twelfth	2⅔
37	Flautina	2	81	Flute Twelfth2⅔	2⅔
38	Salicetina	2	82	Fifteenth	2
39	Octavin	1	83	Piccolo	2

40	Krummhorn	16
41	Clarinet	8
42	Vox Angelica	8
43	Xylophone	4
44	Chrysoglott Chimes (F)	4

Solo

95	Sub Diapason	16
96	Strings	16
97	Contra Tibia	16
98	Open Diapason	8
99	Viole	8
100	Strings	8
101	Tibia	8
102	Concert Flute	8
103	Strings	4
104	Tibia	4
105	Nazard	2⅔
106	Viole Fifteenth	2
107	Ocarina	2
108	Tierce	1⅗
109	Fagotto	16
110	Vox Humana	16
111	Trumpet	8
112	Corno di Bassetto	8
113	Xylophone	4
114	Carillon	4
115	Glockenspiel	2
116	Sleigh Bells	2
117	Chimes	

Couplers

Swell to Pedal	Bombarde to Great
Swell to Great	Solo to Great
Swell to Choir	Bombarde to Swell
Choir to Pedal	Solo to Swell
Great to Pedal	Solo Repeater
Bombarde to Pedal	Solo Sustainer
Solo to Pedal	Bombarde to Solo
Choir Sustainer	Bombarde Sustainer
Bombarde to Choir	
Solo to Choir	

84	Larigot	1⅓
85	Trombone	16
86	Chalumeau	16
87	Trumpet	8
88	Vox Humana	8
89	Corno di Bassetto	8
90	Orchestral Oboe	8
91	Clarion	4
92	Chrysoglott	8
93	Chrysoglott	4
94	Chrysoglott	2⅔

Bombarde

118	Violes Celestes	16
119	Diaphone	16
120	Contra Flute	16
121	Violes Celestes	8
122	Diaphonic Diapason	8
123	Harmonic Flute	8
124	Violes Celestes	4
125	Octave Diapason	4
126	Harmonic Flute	4
127	Piccolo	2
128	Gross Cornet	VI
129	Contra Bombarde	16
130	Bombarde	8
131	Tuba Horn	8
132	Octave Bombarde	4
133	Octave Horn	4
134	Superoctave	2
135	Orchestral Oboe	8
136	Vox Humana	8
137	Octave Oboe	4
138	Vox Humana	4
139	Glockenspiel	2
140	Sleigh Bells	2
141	Chimes	

Appendix 16 – Some post-1945 concert hall organs

Date	Location	New/Old	Builder
1950	Kidderminster Music Hall	Rebuild	HNB
1951	Hull City Hall	Rebuild	Compton
1953	McEwan Hall, Edinburgh	Rebuild	Willis
1954	St George's Hall, Bradford	Rebuild	Willis
1954	Coatbridge Town Hall	Rebuild	Willis
1954	Royal Festival Hall	New	Harrisons
1956	Huddersfield Town Hall	Rebuild	Willis
1957	St George's Hall Liverpool	Restored	Willis
1959	Portsmouth Guildhall	New	Compton
1959	Colston Hall, Bristol	New	Harrisons
1964	Fairfield Halls, Croydon	New	Harrisons
1967	Queen Elizabeth Hall	New	Flentrop

Appendix 17 – British Organ compositions 1945-1970[421]

This list does not purport to include every composition for solo organ written in the period.

Composer		Title	Date	Publisher
Arnell	Richard	Baroque Prelude and fantasia op 34	1948	HWG
Arnell	Richard	Chorale Variations on 'Ein' feste Burg op 89	1960	HSN
Arnell	Richard	Fugal Flourish	1961	HSN
Arnell	Richard	3 related pieces op 104	1966	HSN
Arnell	Richard	Andantino op 71	n/a	PEE
Ashfield	Robert	Organ Sonata in E minor	1956	Novello
Ashfield	Robert	Carillon, Plaint and Paean	1962	Novello
Barkus	Albert	Two Bridal Fanfares	1953	ASH
Barlow	David	Passion Music	1963	Novello
Barlow	Michael	Meditation on "Veni Creator Spiritus"	1966	OEC?
Barlow	Michael	Wedding Processional	1969	OEC?
Barlow	Michael	Fanfare for an occasion	1960	OEC?
Barritt	Kenneth	Three Quiet Interludes	1942	Novello
Bayco	Frederic	Minuet	1951	ASH
Bayco	Frederic	Scherzo	1951	ASH
Bayco	Frederic	Hymn for heroes	1952	FDH
Berkeley	Lennox	Impromptu	1941	CHE
Berkeley	Lennox	Three pieces (Aubade, Aria , Toccata)	1966-68	CHE
Betteridge	Leslie	Variations on Veni Emmanuel	1950	ELV
Black	Magnus	Sonata in A	1970	PPS
Blackmore	George	Festal Day	1964	BSW
Blunt	Marcus	Canon	1965	MDM
Bolley	Richard	Epithalamion	1969	n/a
Bolley	Richard	Song	1970	n/a
Bonavia-Hunt	Aubrey	Intermezzo for diapasons	1946	WEE
Bonavia-Hunt	Aubrey	Elegy for flutes	1946	WEE
Bonavia-Hunt	Aubrey	Revelation	1946	WEE
Bonavia-Hunt	Aubrey	Festal Postlude in C	1947	WEE
Bonavia-Hunt	Aubrey	Ten short easy voluntaries	1959	JFB
Bourgeois	Derek	Prelude and Fugue in A flat	1959	SMU
Bourgeois	Derek	Chorale Prelude on "Christ lag in Todesbanden"	1962	SMU
Bourgeois	Derek	Elegie	1963	n/a
Bourgeois	Derek	Serenade	1965	SMR
Bowers-Broadbent	Christopher	Four Diversions	1969	m/s
Britten	Benjamin	Prelude and Fugue on a theme of Vittoria	1946	BAH
Britten	Benjamin	Voluntary on Tallis' Lamentation	c.1940	BAH
Britten	Benjamin	Village Organist's piece	c.1940	BAH
Broadhead	George	Elegy	1946	PRS
Broadhead	George	March Jubilant	1949	PRS
Broadhead	George	Trumpet Postlude	1953	LRZ
Broadhead	George	Sonatine	1962	CRA

[421] Henderson, J. (2005) *A directory of composers for organ*. 3rd rev. and enlarged ed. Swindon: John Henderson (Publishing).

Broadhead	George	Short voluntaries for manuals (2 sets)	1952/3	LRZ?
Brockless	Brian	Prelude, Toccata and Chaconne	1959	Nov
Brockless	Brian	Intrada	1961	Nov
Brockless	Brian	Introduction, Passacaglia and Coda	1966	Nov
Brockless	Brian	Fantasia, Adagio and Fugue	1969	ROB
Brown	William	Prelude on Merbecke's Agnus dei	1959	n/a
Brown	William	Variations on a French air	1965	n/a
Brusey	James	Christmas Prelude on three carols	1962	GAL
Buckland	John	Prelude and four chorales	1953	PAT
Bullock	Ernest	Improvisation on a theme of Gibbons	1953	CRA
Bullock	Ernest	2 Rhapsodies	n/a	AUG
Burrows	Benjamin	Four Chorale preludes (2 sets)	1942	SMI
Burrows	Benjamin	Two Folk Tunes	1942	SMI
Burton	Claude	Improvisation on "The first Nowell"	1956	OUP
Bush	Alan	Three English Song Preludes	1952	OUP
Bush	Geoffrey	Carillon	1956	OUP
Bush	Geoffrey	Toccata	1956	OUP
Bush	Alan	Two Occasional Pieces	1962	OUP
Butcher	Vernon	Introduction and Fugue in Eb	1947	OUP
Butcher	Vernon	Three versets on Diva Servatrix	1952	OUP
Butcher	Vernon	Three postludes on hymn tunes	1953	HSN
Butcher	Vernon	Two improvisations on Anglican Chants	1953	HSN
Buttall	Philip	Wedding March	1967	n/a
Butterworth	Arthur	Partita on a German chorale	1947	n/a
Cameron	Gordon	Six Hymn Preludes	1942	NOV
Cameron	Gordon	Fantasy on St Denio	1945	NOV
Cameron	Gordon	Four Hymn Preludes	1948	NOV
Campbell	Sidney	Gaudeamus (in Festive Album)	1956	OUP
Campbell	Sidney	Epilogue on a Gallery Carol	1956	OUP
Campbell	Sidney	Exultate	1956	NOV
Campbell	Sidney	Canterbury Interlude	1962	HSN
Campbell	Sidney	Variations on Vexilla Regis	1962	NOV
Campbell	Sidney	Pageantry	1962	NOV
Campbell	Sidney	Canterbury Improvisations	1956	NOV
Cannon	Philip	Carillon (Fugue in 5 parts)	1955	FDH
Cashmore	Donald	Processional March	1961	NOV
Cashmore	Donald	Variations on Vexilla Regis	1961	NOV
Chadwyck-Healey	Philip	Two Preludes	1948	AUG
Chadwyck-Healey	Philip	Prelude no3	1952	AUG
Chadwyck-Healey	Philip	Prelude no4	1952	AUG
Chadwyck-Healey	Philip	Elegy	1955	AUG
Choveaux	Nicholas	Three pieces	1946	LGK
Christopher	Cyril	Three choral improvisations	1949	HSN
Christopher	Cyril	Rhapsody on a ground	1949	HSN
Christopher	Cyril	Two recital pieces	1952	HSN
Christopher	Cyril	Sonata Brevis	1957	HSN
Christopher	Cyril	Homage Hymn	1957	HSN
Christopher	Cyril	Psalm Prelude on Psalm 139	1957	HSN
Chuckerbutty	Oliphant	Paean	1948	BSW

Chuckerbutty	Oliphant	Queen's Procession	1952	BSW
Clarke	Arthur	Two Chorale Preludes	1947	LGK
Clarke	Blamire	Chorale prelude on Abridge	1951	Self
Coates	Douglas	Idyll	1953	n/a
Coates	Leon	Variations	1966	SMA
Coates	Douglas	Seven short improvisations/two chorale preludes	1968	BSW
Coates	Douglas	Scherzo	n/a	NOV
Coates	Leon	Elegy	1966	n/a
Coates	Leon	Fantasy on Schmucke dich	1966	n/a
Coleman	Henry	Rhapsody on King's Lynn	1947	BSW
Coleman	Henry	Alla Marcia	1949	OUP
Coleman	Henry	Finale on Hyfrydol	1950	OUP
Coleman	Henry	Festal Finale	1956	OUP
Coleman	Henry	Prelude	1956	OUP
Coleman	Henry	Two Pieces	1958	NOV
Coleman	Henry	Festival March	1959	CRA
Coleman	Henry	24 Interludes on Communion Hymns	1961	OUP
Coleman	Henry	Ten interludes and voluntaries for manuals	1962	LGB
Coleman	Henry	Voluntary in G	1966	CRA
Coleridge-Taylor	Avril	Melody and Threnody	n/a	n/a
Cook	John	Fanfare	1952	NOV
Cook	John	Mr Purcell's wedding March	1953	NOV
Cook	John	Paean on Divinum Mysterium	1956	NOV
Cook	John	Invocation and Allegro Giocoso	1956	NOV
Cook	John	Improvisation on Veni Creator Spiritus	1956	NOV
Cook	John	Five studies in the form of a sonata	1958	NOV
Cook	John	Flourish and Fugue	1959	HWG
Cook	John	Scherzo, Dance and Reflection	1965	HWG
Cook	John	Variations on Alles ist an Gottes Segen	1967	HWG/NOV
Cooke	Arnold	Sarabande	1961	OUP
Cooke	Arnold	Prelude, Intermezzo and Finale	1962	NOV
Cooke	Arnold	Fantasia	1964	HSN
Cooke	Arnold	Postlude	1964	OUP
Cooke	Arnold	Impromptu	1966	OUP
Cooke	Arnold	Toccata and Aria	1967	AAM
Cooke	Arnold	Fugal Adventures	1967	AAM
Cranmer	Philip	Pavane and Galliard in G	1957	OUP
Cranmer	Philip	Prelude on O Quanta Qualia	1960	OUP
Cranmer	Philip	Prelude, Ground Bass and Finale	1962	OUP
Cranmer	Philip	Introduction and Toccata for a wedding	1969	OUP
Croxall	Thomas	Andante	1941	SMI
Curtis	Gilbert	Chorale prelude on Wiltshire	1940	Walsh
Dalby	Martin	Flourish for a wedding	1962	NOV
Dalby	Martin	Fantasia after Philip Rosseter	1963	Unpub.
Dalby	Martin	Little Suite	1966	NOV
Dalby	Martin	Three preludes after Pergolesi	1967	Unpub.
Dalby	Martin	Elizabeth Fragments	1969	SMC
Darke	Harold	Meditation on Brother James' Air	1947	OUP
Darke	Harold	Elegy in Eb	1949	OUP

Darke	Harold	In Green Pastures	1956	OUP
Darke	Harold	Bridal Procession in C	1965	AHC
Darke	Harold	Retrospection	1955	NOV
Davies	Peter Maxwell	Fantasia on O Magnum Mysterium	1960	SCH
Demuth	Norman	Suite pour La Trinité	1952	HGL
Demuth	Norman	Livre d'Orgue	1953	n/a
Demuth	Norman	Pastorale	1956	n/a
Demuth	Norman	Two pieces	1956	n/a
Demuth	Norman	Three chorales	1957	n/a
Demuth	Norman	Two preludes and fugues	1957	n/a
Demuth	Norman	Symphony	1957	n/a
Demuth	Norman	Cantiones Sacrae 1-7	1957	BSW
Demuth	Norman	Offrande I and II	n/a	HGL
Dickinson	Peter	A Cambridge Postlude	1953	NOV
Dickinson	Peter	Toccata	1955	NOV
Dickinson	Peter	Meditation on Murder in the Cathedral	1958	NOV
Dickinson	Peter	Study in pianissimo	1959	NOV
Dickinson	Peter	Dirge	1963	NOV
Dickinson	Peter	Carillon	1964	NOV
Dickinson	Peter	Three statements	1964	NOV
Dickinson	Peter	Postlude on Adeste Fideles	1967	NOV
Dickinson	Peter	Paraphrase I	1967	NOV
Dixon	Reginald	Baroque Suite	1959	HSN
Dixon	Reginald	Berceuse	1959	HSN
Dixon	Reginald	Festive prelude	1962	HSN
Dore	Philip	Hymn Preludes	1955	WEI
Douglas	Roy	Jubilate	1964	OUP
Downes	Ralph	Paraphrase on O filii	1949	HWG
Drakeford	Richard	Toccata	1966	NOV?
Drakeford	Richard	Three Carol Preludes	1967	NOV
Drakeford	Richard	Suite	n/a	AAM
Dunhill	Thomas	Four Original Pieces	1946	NOV
Dyson	George	Prelude and Postlude	1956	NOV
Dyson	George	Voluntary in D	1958	OUP
Dyson	George	Fantasia And Ground Bass	1960	NOV
Dyson	George	Variations on Psalm Tunes	1960-1	NOV
Easdale	Brian	Evening Prelude	1951	OUP
Edmunds	Christopher	Prelude and Fugue on Es ist ein Ros' entsprungen	1948	LGK
Eldridge	Guy	Four Impressions	1959	NOV
Eldridge	Guy	Legend and Festal Postlude	1959	NOV
Eldridge	Guy	Fanfare	1961	NOV
Eldridge	Guy	Impromptu, Elegy and Scherzo	1961	NOV
Eldridge	Guy	Three evening meditations	1967	CRA
Emery	Wilfred	Paean	1954	CRA
Emery	Wilfred	Christmas prelude on Endris Night	1954/8	NOV
Emery	Wilfred	Hymn Tune Preludes	1952/3	CRA
Evans	Peter	Preludes on three plainsong hymns	1955	LGK
Finisy	Michael	Incidental Music to Shakespeare's Macbeth	1963	Unpub.
Finisy	Michael	Synthesis	1969	Unpub.

Flay	Alfred	Two Chorale Preludes	1941	HSN
Flay	Alfred	Pastorale	1965	HSN
Flowers	Geoffrey	Hymn Prelude on a theme of Orlando Gibbons	1960	CRA
Forbes	Sebastian	Sonata	1968	OUP
Forbes	Sebastian	Haec Dies	1969	OUP
Forbes	Sebastian	Ite missa est	1970	OUP
Foster	Ivor	Meditation	1953	ASH
Francis	George	Song of Freedom	1941	SAB
Francis	George	Lament	1942	OUP
Fricker	Peter Racine	Sonata	1947	Lost m/s
Fricker	Peter Racine	Chorale	1956	SCH
Fricker	Peter Racine	Pastorale	1959	SCH
Fricker	Peter Racine	Wedding Processional	1960	SCH
Fricker	Peter Racine	Trio Sonata	1964	n/a
Fricker	Peter Racine	Ricercare	1965	SCH
Fricker	Peter Racine	Six short pieces	1968	AGB
Fricker	Peter Racine	Toccata Gladius Hymni	1968	AGB
Fricker	Peter Racine	Trio	1968	OUP
Fricker	Peter Racine	Praeludium	1969	OUP
Frost	Ronald	Partita/Variations/Toccata	n/a	n/a
Gardner	John	Wedding March	1952	NOV
Gardner	John	Fantasy on Non Nobis Domine	1955	NOV
Gardner	John	Five hymn tune preludes	1959	NOV
Gardner	John	Prelude in G minor	1967	OUP
Gardner	Robert	Phrygian Fugue	1967	BMI
Garton	Graham	Wedding Prelude/Six sensations	n/a	OEC
Gibbs	Cecil	Six sketches	1954	OUP
Gibbs	Cecil	Minuet in classical style	1954	OUP
Gibbs	Alan	Sonata	1955	BDC
Gibbs	Cecil	Postlude in D	1956	OUP
Gibbs	Alan	Viewpoints	1963	BDC
Gibbs	Alan	Six adjectives	1963	BDC
Gibbs	Alan	Sonata no2	1970	BDC
Gibbs	Alan	Peacehaven preludes	1970	BDC
Gibbs	Cecil	Prelude on Coventry Carol	n/a	OUP
Gilbert	Norman	Psalm Rhapsody	1953	NOV
Gilbert	Norman	Pastorale and Sortie	1956	NOV
Gilbert	Norman	Epilogue	1958	OUP
Gilbert	Norman	Pieces for four seasons	1960	n/a
Gould	Janetta	Toccata	1959	BMI
Gould	Janetta	Abbey Suite	1969	n/a
Gow	David	Wedding March	1961	n/a
Gow	David	Passacaglia, chorale and fugue	1964	BMI
Gowers	Patrick	Toccata	1970	OUP
Graham	Colin	Psalm Prelude 1	n/a	GOO
Greaves	Ralph	Christmas Overture	1948	OUP
Green	David	Various but dates unknown	n/a	OEC
Greenhill	Harold	Three pieces	1947	NOV
Groocock	Joseph	Chorale prelude on Hanover	1945	Unpub.

Groocock	Joseph	Ricercare 1	1946	Unpub.
Groocock	Joseph	Passacaglia 1	1947	Unpub.
Groves	Robert	Six plainsong preludes	1954	ELK
Groves	Robert	Six Scottish Hymn Tune preludes	1954	ELK
Groves	Robert	Three short trios	1955	HSN
Groves	Robert	Six Welsh Hymn Tune preludes	1956	ELK
Groves	Robert	Introduction and Passacaglia	1958	n/a
Groves	Robert	Six short seasonal preludes	1960	HSN
Groves	Robert	Four voluntaries	1963	ELK
Groves	Robert	Twelve Hymn Tune preludes	1950/1	ELK
Guest	Douglas	Voluntary for Easter	1956	OUP
Hall	Richard	Toccata, Intermezzo and Fugue	1943	HSN
Hall	Richard	Pastorale du Nord	1944	OUP
Hall	Richard	Intermezzo	1965	HSN
Hall	John Gerald	Passacaglia/Chorale prelude on Richmond	n/a	n/a
Hallam	Percy	Pastoral Prelude	1941	SMI
Hallam	Percy	Prelude no1	1942	SMI
Hames	Richard	Monody for St Michael	1967	ALL
Hames	Richard	Estampie et Doubles	n/a	ALL
Hamilton	Iain	Fanfares and variants	1960	SCH
Hamilton	Iain	Aubade	1965	PRS
Hamilton	Iain	Threnos	1966	PRS
Hamilton	Iain	Paraphrase of the Music for Organs	1970	PRS
Hanson	Geoffrey	Three pieces	1970	ROB
Harker	Clifford	Three pieces on plainsong	1956	BSW
Harker	Clifford	Four miniatures	1957	BSW
Harker	Clifford	Cantilene and Alla Marcia	1959	NOV
Harker	Clifford	Three easy postludes	1961	BSW
Harker	Clifford	Prelude on Westminster Abbey	1964	BSW
Harris	William	A Fancy	1947	NOV
Harris	William	Flourish for an occasion	1948	NOV
Harris	William	Saraband processional	1949	NOV
Harris	William	Three preludes	1952	NOV
Harris	William	Miniature suite	1957	NOV
Harris	William	Three opening voluntaries	1957	NOV
Harris	William	Elegy and Postlude	1959	NOV
Harris	William	Processional March	1960	NOV
Harris	William	Epilogue on Dix	1956	NOV
Harris	William	Fantasy on Easter Hymn	n/a	NOV
Harris	William	Prelude in G	n/a	OUP
Harrison	Pamela	Epithalamium	1967	Unpub.
Harvey	Jonathan	Laus Deo	1969	NOV
Harwood	Basil	Quiet voluntary for evensong	1946	NOV
Haworth	Frank	Rune of the rose	1954	CMC
Headington	Christopher	Prelude and Fugue	1959	BMI
Healey	Derek	Voluntaries 1-3	1956	JAY
Healey	Derek	First Sonata	1960	JAY?
Healey	Derek	Voluntary 4-5	1963	JAY
Healey	Derek	Three preludes on French hymn tunes	1963	NOV

Healey	Derek	Variants: The Coventry Carol	1964	NOV
Healey	Derek	Voluntary 6	1965	NOV
Healey	Derek	Partita ‘65	1965	NOV
Healey	Derek	Paraphrase Discendi Amor Santo	1967	Unpub
Healey	Derek	Cookham Notebook	1967	AGB
Healey	Derek	Three quiet pieces	1967	AGB
Healey	Derek	Festus	1968	Unpub
Hearne	John	Ciacona	1962	LSM
Henderson	John	Two pieces on 12 note themes	1966	Unpub.
Henderson	John	Toccata in C	1969	Unpub.
Hendrie	Gerald	Homage a Cesar Franck	n/a	AAM
Hendrie	Gerald	Speculo Petro	n/a	AAM
Hendrie	Gerald	Le tombeau de Marcel Dupre	n/a	AAM
Henriksen	Josef	49 Trio preludes	1969	SGP
Henshilwood	Donald	Ecolgue/Elegy and Fugue	n/a	BMI
Hewitt-Jones	Tony	Whit Sunday Processional	1956	NOV
Hewitt-Jones	Tony	Fanfare	1961	NOV
Hewitt-Jones	Tony	Music for Joyful occasions	n/a	ROB
Hill	Anthony	Toccata Eroica	n/a	ROB
Hill	Anthony	Paean/Improvisation on Coventry Carol	n/a	Unpub.
Hoddinott	Alan	Toccata alla Giga	1964	OUP
Hoddinott	Alan	Intrada	1966	OUP
Hoddinott	Alan	Sarum Fanfare	1970	OUP
Holman	Derek	Procession March	1962	NOV
Holman	Derek	Prelude, Air and Fugue	1963	NOV
Howells	Herbert	Partita	1971	NOV
Howells	Herbert	Six Pieces	1940/45	NOV
Howells	Herbert	Intrata no 2	1942	NOV
Howells	Herbert	Siciliano for a high ceremony	1952	NOV
Howells	Herbert	Prelude De Profundis	1958	NOV
Howells	Herbert	Rhapsody IV	1958	NOV
Howells	Herbert	Dalby’s Fancy and Dalby’s Toccata	1959	NOV
Howells	Herbert	A Flourish	1968	NOV
Howlett	John	Six Voluntaries	1952	DIX
Hudes	Eric	Sinfonia Brevis	1966	BMI
Hunt	Oliver	Prelude	1967	n/a
Hunt	William	Three chorale preludes	1960	OUP
Hunt	William	Prelude	1961	OUP
Hunt	William	Chorale prelude on Franconia	1962	CRA
Hunt	William	Madrigal	c.1940	SMI
Hurford	Peter	Paean	1958	OUP
Hurford	Peter	Five short chorale preludes	1958	OUP
Hurford	Peter	Five verses on a melody	1960	OUP
Hurford	Peter	A Fancy	1960	OUP
Hurford	Peter	Laudate Dominum	1961	OUP
Hurford	Peter	Passingala	1961	OUP
Hurford	Peter	Two Dialogues	1963	NOV
Hurford	Peter	Fanfare	1970	OUP
Hutchings	Arthur	Seasonal Preludes	1984?	NOV

Hutchings	Charles	Pastorale and Processional	1954	OUP
Hutchings	Charles	Ostinato, Elegy and Paean	1957	NOV
Hutchings	Charles	Plaint and Postlude	1959	NOV
Inman	Daniel	Principals and Powers	n/a	OEC
Inman	Daniel	Souvenir	n/a	OEC
Ireland	John	Meditation on John Keble's Rogationtide Hymn	1958	HWG
Jackson	Francis	Impromptu for Sir Edward Bairstow	1947	OUP
Jackson	Francis	Toccata, Chorale and Fugue	1955	NOV
Jackson	Francis	Diversion for the mixtures	1959	NOV
Jackson	Francis	Sonata in G minor	1969/70	OUP
Jackson	Francis	Three Pieces	1955	NOV
Jackson	Francis	Scherzetto Pastorale	1955	OUP
Jackson	Francis	Fanfare in Bb (in Festive Album)	1956	OUP
Jackson	Francis	Toccata-Prelude on Wachet auf	1956	OUP
Jackson	Francis	Division on Nun Danket	1956	OUP
Jackson	Francis	Prelude for a solemn occasion	1958	BAN
Jackson	Francis	The Archbishop's fanfare	1961	OUP
Jackson	Francis	Recessional	1963	OUP
Jackson	Francis	Festival Toccata	1970	Unpub.
Jacob	Gordon	Festal Flourish	1958	OUP
Jacob	Gordon	Prelude, Meditation and Fanfare	1958	NOV
Jacob	Gordon	Sarabande (in Retrospection)	n/a	NOV
Janes	Oliver	12 voluntaries for special occasions	1956	WEI
Janes	Oliver	12 voluntaries for Sunday School and Children	1959	WEI
Janes	Oliver	Hymn Tune Voluntaries	1952/56	DIX/WEI
Jarvis	Caleb	Lullaby, Sarabande, Gigue and Meditation	1962	LGK
Jarvis	Caleb	Festiva	1969	HSN
Joubert	John	Prelude on Old 100th	1956	OUP
Joubert	John	Passacaglia and Fugue	1961	NOV
Joubert	John	Prelude on Picardy	1971	OUP
Kelly	Bryan	Prelude and Fugue	1959	NOV
Kelly	Bryan	Nativity Scenes	1966	SAB
Kelly	Bryan	Introduction and Allegro	1967	OUP
Kelly	Bryan	Exultate	1967	OUP
Kendal	Sydney	Two Vignettes	1963	GAL
Kennaway	Lamont	Three Short Pieces	1950	ASH
Kennaway	Lamont	Four miniatures	1951	ASH
Kennaway	Lamont	Slumber Song	1952	ASH
Kennaway	Lamont	Toccata on Hast du denn	1952	ASH
Kennaway	Lamont	Evensong	1953	ASH
Kennaway	Lamont	Prelude	1953	ASH
Kennaway	Lamont	Postlude	1955	ASH
Kennaway	Lamont	Recessional	1956	ASH
Kennaway	Lamont	The Vision	1957	ASH
Kennaway	Lamont	Abbey Prelude	1958	ASH
Kennaway	Lamont	The Divine Loom	1958	ASH
Kennaway	Lamont	The Sunday Voluntaries	1961	ASH
Kennaway	Lamont	Triptych	1965	ASH
Kennaway	Lamont	Legend and Litany	1970	CRA

Knight	Vincent	Six short hymn preludes	1956	PWS
Krish	Edward	Meditation	1954	SAB
Lake	Harold	Contemplation	1949	OUP
Lambert	John	Ricercare no.2	1956	Unpub.
Lambert	John	Organ Mass	1968	AHC
Lang	Craig Stellar	Sonata in D minor	1947	NOV
Lang	Craig Stellar	Introduction and Passacaglia	1952	NOV
Lang	Craig Stellar	Fugue trilogy on EGB	1952	AUG?
Lang	Craig Stellar	Three chorale preludes	1957	NOV
Lang	Craig Stellar	Pastorale/Prelude and Fugue in F	1957	NOV
Lang	Craig Stellar	Toccata in C minor	1959	OUP
Lang	Craig Stellar	Voluntary on Winchester New	1959	NOV
Lang	Craig Stellar	Festival Prelude on Victory	1959	NOV
Lang	Craig Stellar	Introduction and Fugue on Redhead no.46	1959	OUP
Lang	Craig Stellar	Prelude and Fugue in G minor	1960	NOV
Lang	Craig Stellar	Fanfare	1961	NOV
Lang	Craig Stellar	Prelude, Pastorale and Fugue	1962	NOV
Lang	Craig Stellar	Procession	1964	OUP
Lang	Craig Stellar	Twenty hymn tune preludes	1966	OUP
Lang	Craig Stellar	Prelude	n/a	OUP
Lang	Craig Stellar	Fugue on a XIV century melody	n/a	Unpub
Lang	Craig Stellar	Chorale prelude on Bangor	n/a	Unpub
Lang	Craig Stellar	Fantasia and Fugue on DAGF	n/a	Unpub
Lang	Craig Stellar	Ten Short preludes and fugues	n/a	AUG
Lea-Cox	Peter	Cascade	1968	JMA
Lea-Cox	Peter	Sonata for organ duet	n/a	JMA
Lea-Cox	Peter	Suite in A minor	n/a	JMA
Lee	Markham	Six short voluntaries	1949	LGK
Leighton	Kenneth	Et Resurrexit	1966	OUP
Leighton	Kenneth	Paean	1967	OUP
Leighton	Kenneth	Prelude, Scherzo and Passacaglia	1962/3	NOV
Leighton	Kenneth	Elegy	1965	NOV
Leighton	Kenneth	Fanfare	1966	OUP
Leighton	Kenneth	Festival Fanfare	1968	FIS
Leighton	Kenneth	Improvisation	1969	NOV
Leighton	Kenneth	Organ Concerto	1970	NOV
Ley	Henry	Adagio in Eb	1949	OUP
Ley	Henry	Cradle Song	1949	OUP
Ley	Henry	Jubilate Deo	1950	OUP
Ley	Henry	Prelude on St Columba	1950	OUP
Ley	Henry	Chorale prelude on Down Ampney	1959	OUP
Ley	Henry	Prelude on Dundee	1960	OUP
Lloyd Webber	William	Three recital pieces	1952	FDH
Lloyd Webber	William	Chorale, Cantilena and Finale	1957	NOV
Lloyd Webber	William	Benedictus	1960	NOV
Lloyd Webber	William	Three voluntaries	1950	BSW
Lloyd Webber	William	Four Quiet interludes	1951	BSW
Lloyd Webber	William	Suite in Bb	1951	BSW
Lloyd Webber	William	Beside still waters	1952	BSW

Lloyd Webber	William	Festal March	1952	WEE
Lloyd Webber	William	Vesper Hymn	1953	WEE
Lloyd Webber	William	Four Epilogues	1953	BSW
Lloyd Webber	William	Postlude for Christmas	1953	FDH
Lloyd Webber	William	Dedication March	1953	ELK
Lloyd Webber	William	Six sketches	1956	FDH
Lloyd Webber	William	Rhapsody on Helmsley	1956	NOV
Lloyd Webber	William	Intermezzo on Holyrood	1956	NOV
Lloyd Webber	William	Arietta in A	1957	ELK
Lloyd Webber	William	Six interludes on Christmas carols	1961	NOV
Lloyd Webber	William	Solemn Procession	1961	NOV
Lloyd Webber	William	Six interludes on Passion Hymns	1963	NOV
Lloyd Webber	William	Five versets	1964	NOV
Lloyd Webber	William	Three improvisations	1965	NOV
Lloyd Webber	William	Prayer and Praise	1952-59	WEE
Longthorne	Brian	Procession March	1962	NOV
Lutyens	Elisabeth	Sinfonia	1955	SCH
Lutyens	Elisabeth	Epithalamium	1968	KAL
Lutyens	Elisabeth	Temenos	1969	KAL
Lutyens	Elisabeth	Trois Pieces Breves	1969	KAL
Lutyens	Elisabeth	Plenum IV (duet)	n/a	KAL
Maine	Basil	Three plainsong preludes	n/a	BAH
Mansfield	Purcell	Meditation on All in the April evening	1954	CUR
Mansfield	Purcell	Two improvisations	1958	PAX
Mansfield	Purcell	Fantasy variations on St Clement	1960	PAX
Mansfield	Purcell	Meditation on Silent Night	1962	PAX
Mansfield	Purcell	Matins	1966	n/a
Mansfield	Purcell	Wedding Processional	1953	HSN
Marshall	Clifford	Prelude on a Manx Hymn	1954	HSN
Marshall	Philip	Prelude and Chaconne	1963	BAN
Marshall	Clifford	Three short pieces	1964	HSN
Marshall	Clifford	Three manuals only pieces	1965	HSN
Marshall	Clifford	Five diversions on Welsh folksongs	1965	HSN
Marshall	Clifford	Three short pieces	1965	HSN
Marshall	Clifford	Three elementary pieces	1965	HSN
Marshall	Nicholas	Wedding Piece	1966	BMI
Marshall	Philip	Three pieces	n/a	BAN
Mathias	William	Partita	1962	OUP
Mathias	William	Variations on a hymn tune	1962	OUP
Mathias	William	Invocations	1966	OUP
Mathias	William	Toccata Giocosa	1967	OUP
Mathias	William	Postlude	1962	OUP
Mathias	William	Processional	1964	OUP
Mathias	William	Chorale	1966	OUP
Maw	Nicholas	Essay	1961/63	BAH
McCabe	John	Sinfonia	1961	NOV
McCabe	John	Dies Resurrectionis	1963	NOV
McCabe	John	Johannis Partita	1964	NOV
McCabe	John	Prelude	1964	NOV

McCabe	John	Nocturne	1964	OUP
McCabe	John	Elegy	1965	NOV
McCabe	John	Pastorale Sostenuto	1968	OUP
McLean	Arthur	Chansonette	1954	ASH
Mellers	Wilfred	Cantico Virginio	1955	Unpub.
Mellers	Wilfred	Opus alchymicum	1969	SKD
Middleton	James	Three pieces	1952	SAB
Middleton	James	Meditation on a Welsh air	1954	HSN
Miles	George	8 pieces	n/a	CON
Milford	Robin	A Christmas Tune	1946	CRA
Milford	Robin	Two harvest meditations	1949	OUP
Milford	Robin	Seven seasonable sketches	1957	OUP
Milford	Robin	Chorale prelude on Rockingham	1958	OUP
Milford	Robin	Prelude in the form of a passacaglia	1959	HSN
Milford	Robin	Easter meditations	1945-8	OUP
Miller	Andrew	Postlude on Lobe den herren	1958	ASH
Milner	Arthur	Prologue, Variations and Epilogue	1961	ASH
Milner	Arthur	Toccata	1962	ASH
Milner	Arthur	Prelude, Siciliano and Ricercare	1965	NOV
Milner	Arthur	Fantasy Variations	1954	SAB
Milner	Anthony	Rondo Saltato	1955	NOV
Milner	Arthur	Introduction and Fugue	1957	AUG
Milner	Arthur	Three introductory voluntaries	1958	NOV
Milner	Arthur	Pastorale	1958	ASH
Milner	Anthony	Fugue for Advent	1958	HWG
Milner	Arthur	Sarabande for a Solemn Occasion	1959	NOV
Milner	Arthur	Galliard for a Festive Occasion	1959	NOV
Milner	Arthur	Threnody	1960	ASH
Milner	Arthur	Two Meditations on Psalms	1960	NOV
Milner	Arthur	Meditation on Ps. 127	1961	CRA
Milner	Arthur	Six miniatures	1961	NOV
Milner	Arthur	Dithyramb	1961	NOV
Milner	Arthur	Musette and Carol	1961	ASH
Milner	Arthur	Three sketches	1962	NOV
Milner	Arthur	Prelude on a theme of Palestrina	1962	HSN
Milner	Arthur	Finale	1963	ASH
Milner	Arthur	Six preludes	1964	NOV
Milner	Arthur	Festal Epilogue	1964	NOV
Milner	Arthur	Solemn Prelude	1964	ASH
Milner	Arthur	Diptych	1965	NOV
Milner	Arthur	Meditation on Ps.62	1966	SAB
Milner	Arthur	Meditation on Ps.137	1966	ASH
Milner	Arthur	Arabesque	1967	ASH
Morris	Christopher	Intermezzo	1961	OUP
Murray	Dom Gregory	Short organ interludes	1935-87	MAY
Murrill	Herbert	Carillon	1949	OUP
Murrill	Herbert	Postlude on a ground	1949	OUP
Murrill	Herbert	Fantasia on the hymn tune Wareham	1950	OUP
Naylor	Peter	Interlude	1963	n/a

Naylor	Peter	Movement	1964	NOV
Newman	Frank	Tranquillo	1952	ASH
Newman	Frank	Meditation	1953	ASH
Nutt	Harold	Procession March	1962	NOV
Oldroyd	George	Three liturgical improvisations	1948	OUP
Oldroyd	George	Two evening responds	1949	OUP
Oldroyd	George	Le Prie-Dieu	1949	OUP
Oldroyd	George	Prelude on This Endris Night	1950	OUP
Orr	Robin	Three preludes on Scottish Hymn Tunes	1958	HSN/AAM
Orr	Robin	Elegy	1968	OUP
Orton	Richard	Prelude and Fugue / Wedding prelude	1962	Unpub.
Oxley	Harrison	Christmas Prelude	1963	NOV
Oxley	Harrison	Elegy	1964	NOV
Oxley	Harrison	Clarinet tune	n/a	NOV
Parfrey	Raymond	Toccata and Scherzetto	n/a	OEC
Parfrey	Raymond	Three's Company	n/a	OEC
Parfrey	Raymond	Pastoral Movements	n/a	ANI
Parrott	Ian	Agincourt	1948	n/a
Parrott	Ian	Elegy	1957	n/a
Parrott	Ian	Toccata	1962	ELK
Parrott	Ian	Mosaics	1968	n/a
Pasfield	William	Five Improvisations	1959	BSW
Pasfield	William	Tu Rex Gloriae	n/a	OEC
Patterson	Paul	Jubilate	1969	WEI
Patterson	Paul	Intrada	1969	WEI
Patterson	Paul	Interludium	1971	WEI
Pearson	William	Preludes for evensong	1952	ELK
Pearson	William	Fanfare for a Festival	1967	HSN
Phillips	Gordon	Partita on Urbs Beata	1957	HSN
Phillips	Gordon	Finale on Veni Emmanuel	1957	HSN
Phillips	Gordon	Toccata	1957	HSN
Phillips	Gordon	Six hymn preludes	1960	HSN
Phillips	Gordon	Postlude for a Festival	1962	HSN
Phillips	Gordon	A Dorian Ground	1965	HSN
Porter	Ambrose	Introduction, Variation and Finale on Stuttgart	1950	CRA
Porter	Ambrose	Epithalamium	1951	OUP
Porter	Ambrose	Benediction nuptiale	1951	OUP
Porter	Ambrose	Prelude and Fugue on Easter Hymn	1958	CRA
Preston	Simon	Alleluyas	1965	OUP
Prichard	Ernest	Sonata in D minor	1948	NOV
Prideaux-Brune	John	Nocturne	1952	BMI
Pritchard	Arthur	Chorale prelude on Dix	1954	CRA
Pritchard	Arthur	Miniature Suite	1955	AUG
Pritchard	Arthur	Elegy	1957	NOV
Pritchard	Arthur	Fancy	1957	NOV
Pritchard	Arthur	Four Divisions	1958	NOV
Pritchard	Arthur	Three Pieces	1959	NOV
Pritchard	Arthur	Procession, Interlude and Sortie	1961	NOV
Pritchard	Arthur	Solemn Festival	1961	AUG

Pritchard	Arthur	Five Pieces	1963	FDH
Proctor	Charles	Sonata 1 in D minor	1945	LGK
Proctor	Charles	Sonata 2 in F# minor	1954	LGK
Proctor	Charles	Sonata 3 in C	1956	LGK
Proctor	Charles	Canzona, Chorale and Passacaglia	1960	LGK
Proctor	Charles	Three Intradas	1970	LGK
Rapley	Felton	Breton Berceuse	1947	AHC
Rapley	Felton	Pastorale Improvisation	1963	BSW
Rapley	Felton	Postlude for a joyful occasion	1963	BSW
Ratcliffe	Desmond	Caprice for oboe	1960	NOV
Ratcliffe	Desmond	Scherzo in G minor	1952	NOV
Ratcliffe	Desmond	Three pieces	1952	NOV
Ratcliffe	Desmond	Festal Finale in Bb	1954	NOV
Ratcliffe	Desmond	Figures plain and fancy	1954	NOV
Ratcliffe	Desmond	Flourish on Wurtemberg	1956	NOV
Ratcliffe	Desmond	Reflection on the Passion Chorale	1956	NOV
Ratcliffe	Desmond	Meditation on the Infant King	1957	NOV
Ratcliffe	Desmond	2 Sketches	1957	NOV
Ratcliffe	Desmond	Three pieces set 2	1958	NOV
Ratcliffe	Desmond	Preamble, Contrast and Hosanna	1960	NOV
Ratcliffe	Desmond	Sixty Interludes	1963	NOV
Ratcliffe	Desmond	Arioso	1965	NOV
Ratcliffe	Desmond	Threnody	1969	NOV
Rathbone	Christopher	Diptych	1965	Unpub.
Rathbone	Christopher	October Music	1969	Unpub.
Rhodes	Harold	Interlude in G minor	n/a	HSN
Rhodes	Harold	Alla Marcia	1958	NOV
Ridout	Alan	Seven Last Words	1965	OUP
Ridout	Alan	Two pictures of Graham Sutherland	1967	OUP
Ridout	Alan	Resurrection Dances	1969	CHA
Ridout	Alan	Processional	1970	OUP
Ridout	Alan	Sinfonia	1970	CHA
Ridout	Alan	Processions	1969	CHA
Rimmer	Frederick	Five preludes on Scottish Psalm Tunes	n/a	HSN/AAM
Rimmer	Frederick	Invenzione e Passacaglia Capricciosa	n/a	FIS/AAM
Rimmer	Frederick	Pastorale and Toccata	n/a	AHC/AAM
Ross	Colin	Improvisation on Ich ruf zu dir	1966	NOV/CTH
Routh	Francis	The manger throne	1959	BAH/RED
Routh	Francis	Fantasia no 1	1960	HSN
Routh	Francis	Sonatina	1965	BAH/RED
Routh	Francis	Fantasia no 2	1967	BAH/RED
Routh	Francis	Lumen Christe	1968	BAH/RED
Routh	Francis	Aeterne Rex Altissime	1970	BAH/RED
Routh	Francis	Five Short pieces	n/a	HSN
Routh	Francis	Two teaching pieces	n/a	HSN
Rowley	Alec	Symphony in B minor	1954	NOV
Rowley	Alec	Sonata in A minor	1958	AUG
Rowley	Alec	Symphony no 2 in F	1959	NOV
Rowley	Alec	Festival March	1946	WIL

Rowley	Alec	Soliloquy	1946	NOV
Rowley	Alec	Chorale preludes	1948	HSN
Rowley	Alec	Pavan	1948	ASH
Rowley	Alec	Five improvisations	1948	NOV
Rowley	Alec	Contemplation	1949	NOV
Rowley	Alec	Suite	1949	ASH
Rowley	Alec	Sonnet	1950	OUP
Rowley	Alec	Chorale prelude on Crimond	1951	ASH
Rowley	Alec	Toccata	1951	NOV
Rowley	Alec	Easter Alleluia	1952	ASH
Rowley	Alec	Triumph Song	1952	NOV
Rowley	Alec	A book of voluntaries	1953	ASH
Rowley	Alec	Three scenes from the boyhood of Christ	1953	NOV
Rowley	Alec	Triptych	1955	NOV
Rowley	Alec	Meditation (in Festal Voluntaries)	1956	NOV
Rowley	Alec	Contemplation on Hawkhurst	1956	NOV
Rowley	Alec	Four meditations on communion hymns	1956	ASH
Rowley	Alec	The 65th Psalm	1956	HWG/ASH
Rowley	Alec	Keltic March	1957	ASH
Rowley	Alec	Sonatina	1959	NOV
Rowley	Alec	Nine Hymn Tune Voluntaries	1960	ELK
Rowley	Alec	Three Scenes from the boyhood of Christ	n/a	NOV
Rowley	Alec	26 chorale preludes on hymn tunes	1951-55	ASH
Rowley	Alec	Prelude on Picardy	n/a	OUP
Rubbra	Edmund	Meditation	1953	LGK
Salter	Timothy	Passacaglia no.1	1961	USK
Salter	Timothy	Wedding March	1967	USK
Samuel	Harry	Praeludium	1951	BMI
Sceats	Godfrey	Three impromptus	1955	HSN
Sceats	Godfrey	Tema Ostinato	n/a	PHI
Scott	Anthony	Prelude and Fugue in G minor	1948	OUP
Scott	John Sebastian	Pastorale Prelude	1951	CRA
Scott	Anthony	Toccata and Fugue in A minor	1959	NOV
Scull	Harold	Prelude for a wedding	1964	CRA
Searle	Humphrey	Toccata alla Passacaglia	1957	SCH
Self	Geoffrey	Introduction and passacaglia	n/a	ANI
Self	Geoffrey	Prelude and passacaglia	n/a	ANI
Shebbeare	Dom Alphege	The Gregorian Organist	1938/52	CRY
Slater	Gordon	Prelude on Cheshire	1950	OUP
Slater	Gordon	Prelude on St Botolph	1954	OUP
Slater	Gordon	Canticle on St Fulbert	1956	NOV
Slater	Gordon	Introitus on Herzliebster Jesu	1956	NOV
Slater	Gordon	Prelude, Intermezzo and Epilogue	1960	NOV
Smith	Eric	Four middle voluntaries	1956	ELK
Smith	Eric	Three fancies	1957	ASH
Smith Brindle	Reginald	Three improvisations	1962	HSN
Sorabji	Leon	Symphony no 3	1949-53	n/a
Souster	Tim	Study for Organ	1966	GAL
Spinks	Charles	Three arabesques	1951	OUP/BDC

Spinks	Charles	Toccata	n/a	BDC
Spinks	Charles	Feu Follet and Bagatelle	n/a	BDC
Spooner	Ian	Sinfonia	1968	BAH
Spooner	Ian	Prelude and Toccata	n/a	HSN
Stanford	Patrick	Metamorphoses	1969	NOV
Stanton	Walter	Prelude for the Chancellor	1955	SAB
Statham	Heathcote	Sketch (in Colours of the Organ)	1960	NOV
Statham	Heathcote	Rhapsody on a ground	1944	NOV/RAM
Statham	Heathcote	Two short pieces	1957	NOV
Statham	Heathcote	Four diversions	1957	NOV
Statham	Heathcote	Divertimento	1957	NOV
Statham	Heathcote	Fantasy on Veni Emmanuel	1957	NOV
Statham	Heathcote	Lament	1963	NOV
Statham	Heathcote	Pastorale/March	n/a	n/a
Statham	Heathcote	Six chorale preludes	n/a	NOV
Steele	Douglas	Chorale prelude on Gibbons' Angel's Song	1947	NOV
Steele	Christopher	Fantasy on a theme of Purcell	1965	NOV
Stevens	Bernard	Fantasia	1969	NOV
Stevens	Donald	Aeolian Toccata	1969	HSN
Stevens	Donald	Fantasia in A	1964?	HSN
Stevens	James	Etheria	1967	BMI
Stevens	James	Amo ergo sum	n/a	BMI
Stevenson	Ronald	Prelude and Fugue on a theme of Liszt	1961	ROB
Stevenson	Ronald	Reflections on an old Scottish Psalm Tune	n/a	BDC
Stevenson	Ronald	Doubles on Rubbra's Cradle Hymn	n/a	BDC
Stocks	Harold	Five variations on a Welsh Hymn Tune	1951	HSN
Stoker	Richard	A Little Organ Book	1968	BAH
Stoker	Richard	Partita	1969	BAH
Stoker	Richard	Three improvisations	1970	BAH
Sturman	Paul	Variations on "Jesu, thou joy of longing hearts"	1970	ASH
Sumsion	Herbert	Pastorale	1949	n/a
Sumsion	Herbert	Cradle Song	1954	OUP
Sumsion	Herbert	Allegretto	1954	OUP
Sumsion	Herbert	Intermezzo	1954	OUP
Sumsion	Herbert	Elegy	1955	CRA
Sumsion	Herbert	4 Preludes on Carols	1955	HSN
Sumsion	Herbert	Canzona	1957	HSN
Sumsion	Herbert	Quiet Postlude	1957	HSN
Sumsion	Herbert	Air, Berceuse and procession	1960	NOV
Suttle	Ernest	Wedding March	1961	NOV
Swain	Freda	English Pastorale	1959	NOV
Swain	Freda	Sonatina	n/a	NOV
Tatam	John	Three short pieces	n/a	WIL
Temperley	Nicholas	Interlude in a modern idiom	1960	HSN
Templeton	Alec	Suite Noel	1948	HWG
Thalben-Ball	George	Elegy	1944	PAX
Thalben-Ball	George	Tune in E in the style of John Stanley	1945	BSW
Thalben-Ball	George	Variations on a theme of Paganini	1962	NOV
Thalben-Ball	George	113 Variations on Psalm and Hymn Tunes	1969	NOV

Thiman	Eric	Three preludes on themes by Gibbons	1956	OUP
Thiman	Eric	Six pieces in various styles set 1	1957	CUR/ROB/GSC
Thiman	Eric	Six pieces in various styles set 2	1960	CUR/ROB/GSC
Thiman	Eric	Eight interludes for beginners set1	1946	NOV
Thiman	Eric	A tune for the tuba	1947	NOV
Thiman	Eric	Eight interludes for beginners set2	1948	NOV
Thiman	Eric	Eight interludes for beginners set3	1952	NOV
Thiman	Eric	Four easy pieces on English hymn tunes	1952	AHC
Thiman	Eric	Improvisation on Crimond	1952	NOV
Thiman	Eric	The beginning organist (a tutor)	1954	AHC
Thiman	Eric	Times and Seasons set1	1954	NOV
Thiman	Eric	Three pieces	1955	NOV
Thiman	Eric	Canzonetta on Horsley	1956	NOV
Thiman	Eric	Meditation on a virgin most pure	1956	OUP
Thiman	Eric	Postlude on Adeste Fidelis	1956	OUP
Thiman	Eric	Finale	1956	OUP
Thiman	Eric	Four occasional Pieces	1957	CHA/GSC
Thiman	Eric	Improvisation on hymn tunes	1957	NOV
Thiman	Eric	Four miniatures	1959	CHA/GSC
Thiman	Eric	Times and Seasons set2	1959	NOV
Thiman	Eric	The Organist's Dozen	1959	CUR/GSC
Thiman	Eric	Panis Angelicus	1959	CUR/ROB/GSC
Thiman	Eric	Pavana Antico & Postlude on Duke Street	1959	NOV
Thiman	Eric	Three quiet voluntaries	1960	THO
Thiman	Eric	Three meditations	1961	CHA
Thiman	Eric	Two short fanfares	1961	NOV
Thiman	Eric	Canzona	1961	NOV
Thiman	Eric	March for a pageant	1962	NOV
Thiman	Eric	A Christmas Mediation	1962	GSC
Thiman	Eric	Three devotional pieces	1962	THO
Thiman	Eric	A Christmas chime	1963	GSC
Thiman	Eric	Interludes in miniature	1963	AHC
Thiman	Eric	Four Offertoires founded on the modes	1965	CUR
Thiman	Eric	Sequence in Miniature	1965	HWG
Thiman	Eric	By verdant pastures	1965	HWG
Thiman	Eric	Three hymn tune improvisations	1965	THO
Thiman	Eric	Postlude on Harwood's Thornbury	1966	NOV
Thiman	Eric	Vespers: three quiet pieces	1967	CUR
Thiman	Eric	Mediation on a traditional hymn tune	1968	GSC
Thiman	Eric	Four quiet voluntaries (in 2 sets)	1963/4	NOV
Thompson	Brian	Sonata no 1 in Eb minor	1959	n/a
Tippett	Michael	Preludio al Vespro di Monteverdi	1945	SCH
Tobin	John	Reverie	1958	FDH
Tomlinson	Ernest	Triumphal Overture	1951	n/a
Tomlinson	Ernest	Three lyrical pieces	1958	NOV
Tomlinson	Ernest	Andante Semplice	1960	OUP
Tomlinson	Ernest	Berceuse	1961	OUP
Tranchell	Peter	Nativitates: Sonata	1943	n/a
Tranchell	Peter	Carol Voluntary:Christmas	1948	n/a

Tranchell	Peter	Little Sonata	1948	n/a
Tranchell	Peter	Sonata	1950	n/a
Tranchell	Peter	Four voluntaries set1	1952	n/a
Tranchell	Peter	Two preludes	1952	n/a
Tranchell	Peter	Four voluntaries set2	1952	n/a
Tranchell	Peter	Sonata	1958	n/a
Tranchell	Peter	Organ voluntaries for communion	1960	n/a
Tranchell	Peter	Sonatina	1968	n/a
Trevor	Caleb	Communion on Bread of heaven	n/a	ELK
Trevor	Caleb	Pastorale on Stuttgart	n/a	ELK
Trevor	Caleb	Study on Franconia	n/a	ELK
Truscott	Harold	Toccata	1956	Unpub.
Truscott	Harold	Sonata in C	c.1960	Unpub.
Vaughan Williams	Ralph	Two preludes on Welsh Hymn Tunes	1956	OUP
Wade	Peter	Hallow'd Memories	1959	WEE
Wadely	Frederick	Three period pieces	1949	BSW
Walker	Bernard	Legend	1946	OUP
Walker	Francis	Elegiac Prelude	1955	CRA
Walker	Francis	Idyll	1960	CRA
Walker	Francis	Three preludes	1962	BSW
Walker	Francis	Air in F# minor	1963	CRA
Walker	Francis	Postlude in G	1963	CRA
Wallbank	Newell	Six chorale preludes	1947	LGK
Waters	Charles	Three Pieces	1948	LGK
Waters	Charles	Four occasional pieces	1948	LGK
Waters	Charles	Fantasy Fugue	1951	CRA
Waters	Charles	Verset	1951	CRA
Waters	Charles	Gloria in Excelsis	1953	CRA
Waters	Charles	Organ Mass	1959	HSN
Waters	Charles	Three liturgical meditations	1959	HSN
Waters	Charles	Three folk fancies	1959	OUP
Waters	Charles	Meditation	1960	CRA
Waters	Charles	Reverie	1960	CRA
Waters	Charles	Pavane	1968	LGB
Waters	Charles	3 pieces	1965-69	HSN
Watson	Sydney	Pastorale	1956	OUP
Webber	Walter	Postlude on Miles Lane	1955	CRA
Webber	Walter	Prelude on Southwell	1955	CRA
Webber	Walter	Trumpet tune "Lobe den Herren"	1956	ASH
Weeks	John	Variations and Passacaglia	1964	OEC
Weitz	Guy	Symphonie no 2	1948	CHE?
Weitz	Guy	De Profundis Clamavi	1949	NOV
Weitz	Guy	Two pieces based on Plainchant Motives	1962	HSN
Weitz	Guy	Paraphrase on "Regina coeli laetare"	1966	HSN
Weitz	Guy	Prière on "Salve Regina"	1966	HSN
Wellesz	Egon	Partita in honorem J.S.Bach	1965	DOB
Westbrook	Francis	Westminster Suite	1964	HSN
Westrup	Jack	Five chorale preludes	1949	LGK
Whettam	Graham	Partita	1962	AHC

Whettam	Graham	Fantasia	1965	OUP
Whettam	Graham	Triptych	1966	AHC
Whimster	Pirrie	Festal Prelude	1950	CRA
Whitlock	Percy	Six hymn- preludes	1945	OUP
Whitlock	Percy	Reflections-Three quiet pieces	1942-45	OUP
Willcocks	David	Fanfare on “Gopsal”	1970	OUP
Williams	Christopher	Threnody	1952	BSW
Williamson	Malcolm	Symphony	1960	NOV
Williamson	Malcolm	Resurgence du Feu	1959	CHA
Williamson	Malcolm	Vision of Christ-Phoenix	1961	BAH
Williamson	Malcolm	Elegy for JFK	1964	WEI
Williamson	Malcolm	Two Epitaphs for Edith Sitwell	1966	WEI
Williamson	Malcolm	Fons Amoris	1955/6	NOV
Wills	Arthur	Elevation for Strings	1960	NOV
Wills	Arthur	Eucharistic Suite	1960	NOV
Wills	Arthur	Trio Sonata	1962	BAH/OEC
Wills	Arthur	Variations on a carol	1965	NOV
Wills	Arthur	Christmas Meditations	1967	NOV
Wills	Arthur	Postlude	1959	NOV
Wills	Arthur	Introduction and Allegro	1959	NOV
Wills	Arthur	Fanfare	1960	NOV
Wills	Arthur	Deo Gracias	1960	NOV
Wills	Arthur	Alla Marcia	1961	NOV/OEC
Wills	Arthur	Elegy	1961	NOV/OEC
Wills	Arthur	Five pieces	1961	NOV
Wills	Arthur	Prelude and Fugue	1963	NOV
Wills	Arthur	Sonata	1963	OEC
Wills	Arthur	Prelude and Fugue (Alkmaar)	1971	OUP
Wilson	James	Diversion on a theme of Handel	1969	IMC
Wilson	Robert	Three Short postludes	n/a	SAB
Wilson	Robert	Two quiet preludes	n/a	CRA
Wilson-Dickson	Andrew	Sonata no.1	1968	BAN
Wishart	Peter	Trio Sonata in Bb	1951	OUP
Wishart	Peter	Pastorale and Fughetta	1960	HSN
Wishart	Peter	Organ Sonata	1966	SAB
Wood	Hugh	Capriccio	1966	NOV
Woodgate	Leslie	Impromptu	1948	AHC
Woodgate	Leslie	Pastorale Song	1948	AHC
Woods	Cecil	Wendy Dances	1950	DIX
Wordsworth	William	Fantasia in F minor	1960	LGK
Wordsworth	William	Postlude	1966	SMA

Appendix 18 – The associated recital

St Andrew's Church, Rugby

Thursday February 18th 2016

A recital given by Richard Dunster-Sigtermans as part fulfilment for the degree of Doctor of Philosophy as submitted to the University of Birmingham

Programme

1. Paean	**Herbert Howells** **(1892-1983)**
2. Hymn-Preludes **1) Darwall's 148th** **2) Song 13** **3) Deo Gracias**	**Percy Whitlock** **(1903-1946)**
3. Barcarolle (from *Three recital pieces*)	**W.S. Lloyd Webber** **(1914-1982)**
4. Hymn-Preludes **4) St. Denio** **5) Werde Munter** **6) King's Lynn**	**Percy Whitlock**
5. Elegy – J.F.K.	**Malcolm Williamson** **(1931-2003)**
6. Prelude, Scherzo and Passacaglia	**Kenneth Leighton** **(1929-1988)**

The organ in St Andrew's Parish Church, Rugby

The organ in St Andrew's Parish Church, Rugby is a typical example of the period 1945-1970. Originally built in 1915 by Forster and Andrews it was rebuilt in 1963 by HNB with various tonal changes, including the removal of foundation stops on the Choir in order to add some mutations, albeit rather illogically (e.g. the Tierce needs to be paired with a Nazard rather than with a Larigot). The restoration work in 2007 was mostly remedial to winding and action, with just two stop alterations. The voicing of the whole organ is generally sound, although not fully consistent, and the action is generally reliable but at times not fully responsive, and it does occasionally throw surprises for both the player and the audience. It has registration aids, including general pistons, and with fifty stops spread over three manuals it does have the requisite flexibility to do justice to most recital programmes.

St Andrew's Church, Rugby

Date/Builder: 1915/1963/2007 Forster and Andrews/HNB/Spencer

Pedal

1	Double Diapason	32	
2	Open Diapason	16	
3	Violone	16	
4	Bourdon	16	
5	Principal	8	
6	Bass Flute	8	
7	Fifteenth	4	Added in 1963
8	Clear Flute	4	Added in 1963
9	Mixture	II	Added in 1963
10	Trombone	16	
11	Tromba	8	

Choir (Enclosed)

12	Dulciana	8	
13	Stopped Diapason	8	
14	Principal	4	
15	Stopped Flute	4	Changed in 1963: was Flute Harmonique
16	Gemshorn	2	Changed in 1963: was Piccolo Harmonique
17	Tierce	1⅗	Added in 1963 (replaced Gamba 8')

18	Larigot	1⅓	Added in 1963 (replaced Viol d'Orchestre 8')
19	Tremulant		
20	Clarinet	8	
21	Tuba	8	

Great

22	Double Open Diapason	16	
23	Open Diapason I	8	
24	Open Diapason II	8	
25	Open Diapason III	8	
26	Gamba	8	Changed in 2007: was Spitz Principal
27	Stopped Diapason	8	
28	Principal	4	
29	Flute Ouverte	4	
30	Twelfth	2⅔	
31	Fifteenth	2	
32	Mixture	IV	
33	Double Trumpet	16	
34	Tromba	8	
35	Clarion	4	
36	Tuba	8	

Swell

37	Open Diapason	8	
38	Stopped Flute	8	
39	Salicional	8	
40	Voix Celeste	8	
41	Principal	4	
42	Lieblich Flute	4	Added in 1963 (replaced Bourdon 16')
43	Twelfth	2⅔	Added in 2007 (on slide of former Vox humana 8')
44	Fifteenth	2	
45	Mixture	III	
46	Tremulant		
47	Oboe	8	
48	Contra Fagotto	16	
49	Cornopean	8	
50	Clarion	4	

Couplers

Swell to Pedal
Swell to Great
Swell to Choir
Swell octave to Great
Swell suboctave to Great
Swell octave
Swell suboctave
Choir to Great
Choir to Pedal
Choir suboctave
Great to Pedal
Great Bombarde to Choir

Accessories

6 thumb pistons each to Great and Swell and Choir
6 general thumb pistons
Thumb pistons for Sw-Pd, Sw-Gt, Gt-Pd,
Trombone
6 toe pistons each to Great and Swell
Toe pistons for Sw-Gt, Gt-Pd
Great and Pedal combinations coupled
Generals on Swell toe pistons

Bibliography

Alcock, W. G. (1913) *The Organ.* [S.l.]: Novello.

Anderson, C. J. (2012) *Twentieth-century organ music.* New York, NY: Routledge.

Audsley, G. A. (1919) *The organ of the twentieth century.* [S.l.]: S. Low.

Audsley, G. A. (1921) *Organ stops and their artistic registration.* [S.l.]: Novello.

Barnes, W. H. (1959) *The contemporary American organ.* 7th edn. Glen Rock, N.J.,: J. Fischer.

Baron, J. and Street, G. E. (1858) *Scudamore Organs, or practical hints respecting organs for village churches and small chancels, on improved principles ... With designs by George Edmund Street.* London: Bell & Daldy.

Bicknell, S. (1996) *The history of the English organ.* Cambridge: Cambridge University Press.

Bonavia-Hunt, N. A. (1923) *Modern organ stops a practical guide to their nomenclature construction voicing and artistic use.* [S.l.]: Musical Opinion.

Bonavia-Hunt, N. A. (1947) *The Modern British Organ: A theoretical and practical Treatise on the Tone and Mechanism of the King of Instruments.* London: A. Weekes & Co.

Clark, R. (1993) *Robert Hope-Jones, M.I.E.E.: an interim account of his work in the British Isles*. University of Reading: unpublished PhD thesis.

Clutton, C. and Dixon, G. (1950) *The Organ. Its tonal structure and registration.* London: Grenville Publishing Co.

Clutton, C. and Niland, W. J. A. (1963) *The British Organ.* London: B. T. Batsford.

Cooke, P. A. and Maw, D. N. (2013) *The music of Herbert Howells.* Woodbridge: Boydell Press.

Downes, R. (1983) *Baroque tricks: adventures with the organ builders.* Positif Press.

Elvin, L. (1977) *The Harrison story: Harrison and Harrison, organ builders, Durham.* 2nd ed. Lincoln (10 Almond Ave., Swanpool, Lincoln): The author.

Engel, J. (1986) *An introduction to organ registration. Church music pamphlet series* St. Louis, MO: Concordia Pub. House.

Forsyth-Grant, M. (1987) *Twenty one years of organ building : the history of Degens & Rippin Ltd, Grant, Degens & Rippin Ltd and Grant, Degens & Bradbeer Ltd.* Oxford: Positif Press.

Freke, M. J. (2006) *Organists in the Church of England, 1950-1999: an ethnographic and contextual study in relation to the dioceses of Bristol and Bath and Wells*. University of the West of England, Bristol: unpublished PhD thesis.

Goode, J. C. (1964) *Pipe organ registration.* New York,: Abingdon Press.

Hamilton, K. (2008) *After the golden age: romantic pianism and modern performance.* New York; Oxford: Oxford University Press.

Hardwick, P. (2003) *British organ music of the twentieth century.* Lanham, Md.: Scarecrow Press.

Hemsley, J. D. C. (2005) *Henry Bryceson (1832-1909) organ-builder and early work in the application of electricity to organ actions.* Cardiff University: unpublished PhD thesis.

Henderson, J. (2005) *A directory of composers for organ.* 3rd rev. and enlarged ed. Swindon: John Henderson (Publishing).

Hopkins, E. J. and Rimbault, E. F. (1877) *The organ, its history and construction.* 3rd. ed. London: Cocks.

Howells, H. (1953) *From Six Pieces for Organ. No. 6. Paean.* London: Novello and Co.

Kenyon, N. (1988) *Authenticity and early music: a symposium.* Oxford: Oxford University Press.

Kynaston, D. (2007) *Austerity Britain, 1945-1951.* London: Bloomsbury.

Le Huray, P. (1990) *Authenticity in performance: eighteenth-century case studies.* Cambridge: Cambridge University Press.

Leighton, K. (1964) *Prelude, Scherzo and Passacaglia opus 41.* London: Novello & Co.

Matthews, J. (1920) *A Handbook of the Organ* Seventh impression. *(Augener's edition, no. 9214.).* London; printed in Germany: Augener & Co.

Miller, G. L. (1909) *The recent revolution in organ building; being an account of modern developments.* New York,: The Charles Francis press.

Neal, R. (1982) *The Roy Neal survey of organ registrations and techniques.* Peterborough (P.O. Box 118, Peterborough, PE3 6UY): Scepte.

Norman, H. and Norman, H. J. (1966) *The organ today.* London: Barrie & Rockliff.

Norman, J. (1984) *The organs of Britain: an appreciation and gazetteer.* Newton Abbot: David & Charles.

Norman, J. (2007) *The box of whistles: the history and recent development of organ case design.* London: Azure.

Owen, B. (1997) *The registration of baroque organ music.* Bloomington, Ind.: Indiana University Press.

Plumley, N. M. and Niland, A. (2001) *A history of the organs in St Paul's Cathedral.* Oxford: Positif.

Prozillo, N. S. 2011. *Organ reform in England: aesthetics and polemics, 1901-1965* University of Oxford: unpublished DPhil thesis.

Rennert, J. (1979) *George Thalben-Ball.* Newton Abbot: David and Charles.

Riley, M. (2003) *Percy Whitlock: organist & composer: a biographical study.* Rev. 2nd ed. York: Ebor Press.

Riley, M. and Barnard, L. (2007) *The Percy Whitlock companion.* Staplehurst: The Percy Whitlock Trust.

Rowntree, J. P. (1984) *The development of 'classical' principles in organ building in Britain in the twentieth century.* University of Southampton: unpublished PhD thesis.

Rowntree, J. P. and Brennan, J. F. (1975) *The classical organ in Britain, 1955-1974.* Oxford: Positif Press.

Soderlund, S. (1986) *Organ technique: an historical approach.* 2nd edn. Chapel Hill, NC: Hinshaw Music.

Spicer, P. (2006) *Herbert Howells.* Bridgend, Wales: Seren.

Stainer, J. (1877) *The Organ.* London: Novello, Ewer & Co.

Sumner, W. L. (1961a) *Bach's organ-registration.* London; New York: Hinrichsen Edition.

Sumner, W. L. (1961b) *The parish church organ.* Surrey: Royal School of Church Music.

Sumner, W. L. (1973) *The organ, its evolution, principles of construction and use.* London: MacDonald.

Thalben-Ball, G. T. (1962) *Variations on a Theme by Paganini.* London: Novello & Co.

Thistlethwaite, N. (1990) *The making of the Victorian organ.* Cambridge: Cambridge University Press.

Thistlethwaite, N. (2008) *The organs of Cambridge: an illustrated guide to the organs of the University and City of Cambridge.* Oxford: Positif Press.

Thistlethwaite, N. and Webber, G. (1998) *The Cambridge companion to the organ.* Cambridge: Cambridge University Press.

Trevor, C. H. (1971) *The Oxford Organ Method.* London: Oxford University Press.

Whitlock, P. (1945) *Six Hymn-Preludes for Organ.* London: Oxford University Press.

Whitworth, R. (1948) *The Electric Organ: A historical introduction and a comprehensive description of modern usage of electricity in organ building.* 3rd ed. London: Musical Opinion Ltd.

Whitworth, R. (1951) *Organ Stops and their Use.* London: Sir Isaac Pitman & Sons.

Williams, P. M. (1980) *A new history of the organ: from the Greeks to the present day.* London: Faber.

Wills, A. (1984) *Organ.* London: Macdonald.

Journals referenced

BIOS

Musical Opinion

Musical Times

Organists' Review

The Organ

Online resources referenced

The National Pipe Organ Register: http://www.npor.org.uk/

Dr Colin Pykett: http://www.pykett.org.uk/